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# THE HOSPITAL GAZETTE

AND

## ARCHIVES OF CLINICAL SURGERY,

A SEMI-MONTHLY JOURNAL OF MEDICINE AND SURGERY.

EDITED BY

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Edward J. Bermingham, M. D., and Frederick A. Lyons, M. D.

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### NOTE.

OUR readers will see by this number that we have increased the size of the journal still more than we anticipated, so that three times the amount of matter formerly furnished in the GAZETTE, or half as much again as the ARCHIVES contained, is presented. The change, we know, will be welcomed, especially as the remarkably low subscription price places this standard journal within the reach of every practitioner and student of medicine. The delay in the appearance of this number has been occasioned by a change of printers, and was unavoidable. Our next number will be about a week behind time, but after that the journal will appear promptly on the 1st and 15th of every month.

## LECTURES.

### LECTURES ON OPIUM AS A STIMULANT.

Delivered at the Medical Department, University of New York.

BY

W. H. THOMSON, M. D.,

Professor of Materia Medica and Therapeutics.

#### PART I.

It would conduce greatly to a better understanding of the action of neurotics if it were borne in mind that they are agents which in each case affect only certain nervous functions. There is no neurotic in existence which "affects the nervous system," that is, the whole of it, unless in the one way of causing death. In opium, for example, we have a drug which specifically influences more nervous functions, perhaps, than any other one agent that can be named; and yet, should we enumerate them all, they would constitute but a small number of the great multitude of nervous operations. The nervous system can never be acted upon as a unit like a single muscle, which either contracts or relaxes, or even like a single organ, as the heart, whose action, as a whole, may either be stimulated or depressed.

Another consideration which bears upon our subject is, that at no moment of our lives can all the functions of the nervous system be called into activity at once. A great many of them must be quiescent while others act, while many are even directly antagonistic or counterbalancing to others. We have, for example, nerves which stimulate certain secretions, and nerves which arrest them: nerves which are motor excitants, and their opposites, or inhibiting nerves: and we might continue this comparative survey until analogies of this kind might be found to obtain in the majority of the operations of the nervous system. Now, in accordance with this law, it is obvious that the action of neurotics, instead of being capable of simple or easy classification, often presents us with some of the most complex problems in medicine. The agents, for instance, which we can properly term pure stimulants, like ammonia, or pure sedatives, like prussic acid, are few and relatively unimportant, because their action is limited to single nerve-centres or functions, and hence they are far inferior to those which affect a number of nerve-functions; for no medicine can operate widely on nerve-functions without appearing in very different aspects, according to the centres affected, and hence also capable of many different applications. It is on this account that our most important neurotics are classed, both as stimulants and as sedatives, from the unmistakable evidence they give of both these kinds of action. Alcohol, for example, is a great stimulant, but equally a powerful depressant; and to a similar, or even greater degree, is this the case with opium.

The erroneous conception, however, of the nervous system as one organ,



so to speak, with a sufficient uniformity in function to justify the use of such terms as "general nervous stimulants," or "general nervous sedatives." leads to an equally mistaken conception of the action of those leading neurotics which are both stimulants and sedatives. We are, therefore, told that these agents can act thus only in one way, namely: that they produce an excitant or stimulant impression first, and then a lowering or sedative impression afterward. Now, this is true only to a limited extent in any case, the fact being that both the stimulation and sedation are far more commonly *simultaneous*, the effect being directly stimulant to the function of certain nerve-centres only, while other nerve-functions are just as directly and immediately depressed. In the same fashion that a hearty meal interferes with or diminishes the activity of certain cerebral functions, because a great demand for nerve-power, as well as for blood, is then made by the organs of digestion, so a full dose of opium, while greatly exciting certain intellectual operations at the same moment, suspends digestive secretion, and paralyzes the peristaltic movements of the intestines. Moreover, this same agent, while operating like a very effective astringent in the intestine, bedews the skin with a profuse perspiration. In like manner, while studying the actions of alcohol, it will be noted that along with the production of a specific stimulation of those cerebral centres which are related to the emotions and the feelings, and an equally specific stimulation of the heart on the one hand, we will find, on the other hand, that from the moment it has entered the circulation, the whole sensor system of nerves has become blunted, and increasingly so with each apparently increased excitation of the other functions. The *æsthesiometer* will almost immediately record a decreased sensibility at the tip of the third finger or the tip of the tongue, or the ingestion of an ounce of brandy by a person with a normal condition of those parts; and ere long the man whose sensations seem so highly excited, and whose flushed face and bounding pulse deceptively imply a great increase of nervous activity, finds that his brain is receiving very imperfect information, through his afferent nerves, of the whereabouts of his legs, and though anything but paralyzed in his motor powers, yet his movements have "a great tendency to nowhere." There could scarcely be any idea so mischievous in practice as that you can at any time get nothing but stimulation from alcohol, by the administration of only stimulant, and not intoxicating or narcotic, doses. Every dose of alcohol, large or small, carries along with its stimulation of certain nerve-centres the simultaneous depression of others, so that it is often a question whether, in many instances, the price paid for the stimulation be not altogether too high.

There is, however, such a thing as a real depression following upon stimulation, but in that case it occurs in the stimulated functions only, and always indirectly. Thus we often see the "spirits" which had been raised by alcohol, afterward correspondingly lowered; but when this is the case, the said spirits have not been depressed by the alcohol at all. Its own specific action is always to excite them, and this subsequent depression is only the sign of exhaustion from over-stimulation, and hence never to be sought for as a medicinal operation. Now, if this were the

only kind of depression which alcohol produces, we could escape it by abstaining from over-stimulation by too great doses, and on the same principle we would not think of employing alcohol for its specific sedative properties; that is, if these could be secured only after an undue excitement. But the truth is, that in many cases alcohol is a most valuable remedy, not as a stimulant, but as a sedative, through its securing rest to certain nerve-functions, by blunting their undue sensibility, not secondarily or subsequently, but directly and immediately.

This principle, therefore, that certain neurotics are both stimulants and sedatives at the same time, by operating on different nerve-functions in opposite ways, and therefore when any one function is first stimulated by them, and afterward becomes depressed, the depression is then merely indirect and secondary:—this principle, I say, should lead us to study, not the stimulation nor the depression, as such, but rather to discriminate which particular nerve-functions are stimulated, and which are depressed. In the present instance our subject, “Opium as a Stimulant,” can be dealt with in no other way; for, if we should regard this great agent as in any sense a general nervous stimulant, or, on the other hand, that it can at any time act medicinally as a general sedative, we would have to give up the question in despair at its many seeming contradictions. The instantaneous relief of pain, for example, by a “hypodermic” of morphine, is certainly neither a secondary nor a stimulant effect, and yet along with it such a pleasurable excitement of the imagination and of the fancy occurs, that many persons fall in love, as it were, with the once-dreaded needle. Moreover, simultaneous with the benumbing of the painful sensation, the heart often immediately responds to the effect of the injection in a fashion which is as unmistakably of the nature of stimulation of its beat as any other kind of stimulation that can be named. Our questions, therefore, now are:—1st. What nerve-centres or functions are stimulated by opium? and, 2d, What are the special characteristics of such stimulation?

*(To be continued.)*

## CLINICAL REMARKS ON A CASE OF FIBROUS TUMOR OF THE PYLORUS.

Delivered at the College of Physicians and Surgeons, New York,

BY

ALONZO CLARK, M. D.,

Professor of Pathology and Practical Medicine.

GENTLEMEN:—This man tells us that he has suffered from vomiting for the last three years. It generally occurs after eating, but the time elapsing between the act of eating and the vomiting varies from ten minutes up to an hour or two. The vomiting does not occur after every meal, as he sometimes escapes, but he seldom misses a day without its occurrence. He says that he seems to vomit a larger quantity of material than he eats; it looks yeasty in appearance, and has a very sour taste.



Lately he thinks that he vomits a little less than he used to. He complains of pain across the epigastrium, and a little in the right and left hypochondriac regions. Last winter he vomited a very black-looking material, which he describes as looking like liver, but since that time he has not had any recurrence of this kind of vomiting. He complains of considerable distress in the stomach after eating, when it remains down, but on vomiting, which comes on spontaneously, he feels much relieved. He says that he has lost about twenty-two pounds in flesh during the last year.

A puzzling point in this case is the long duration of the vomiting. There are, as you know, a number of conditions of the stomach that provoke vomiting, and particularly after eating. One of the principal of such causes is some obstruction at the pyloric orifice. Ulcer of the stomach may be situated here, as likewise cancer: and these are the two most frequent causes. Such vomiting may also be due to the presence of tumors external to the stomach itself, but from their proximity exerting pressure on the pyloric opening. I have known of several such instances where the cause was a fibrous tumor situated outside of the stomach, but making pressure on it. Then, again, dilatation of the stomach will cause vomiting of long duration, as in the case that came before us last week, in which the woman had excessive dilatation, with continual vomiting, during a long period of time. Still such cases are comparatively rare. Vomiting also occurs from simple dyspepsia; but commonly in this condition it is not spontaneous, but is caused by the patient passing the finger down the throat, as the emesis relieves the distress produced by the food in the stomach that cannot be digested. Again, it is not apt to be regular. Any abnormal condition of the gastric mucous membrane will produce vomiting. In inflammation of the stomach the food, immediately after it is introduced, is rejected; considerable glairy mucus is vomited with it, and there are fever and other constitutional derangements. But there is nothing like this present in the case before us, though there may be a condition of chronic gastric catarrh, which, however, is not the original cause of the trouble.

On examining the patient's abdomen, we notice, first, that there is a slight fulness on the left side, which does not exist on the other. On the left side we discover a little knot, about as large as the end of the finger; it is quite hard, and moves freely up and down as the patient breathes. When he inspires, I feel it come downward under the finger, and as he expires, it recedes upward again. This is just about in the position of the pylorus, and must be situated there. It is much harder than a fecal mass in the colon would be.

On percussing the stomach, we find it to be pretty large, reaching in a downward direction nearly to the umbilicus, and as far over to the left as a line drawn perpendicularly downward from the axilla. There is then some dilatation, which is due, in all likelihood, to an obstruction at the pylorus.

When I first put my finger on the small tumor at the pylorus, it was so distinct that I thought it might be situated in the abdominal wall, but

on examining more carefully, it is found to be slightly movable underneath, and to move up and down with the other contents of the abdominal cavity, during respiration.

I am inclined to believe this tumor to be a fibrous growth, situated outside of the stomach, but exerting pressure on the pyloric orifice. I do not think that it is carcinomatous for several reasons. He has not had very much pain, and he does not seem to be constitutionally affected to any degree. By this time he would exhibit in some measure the cancerous cachexia. It is now of three years' duration, and has grown quite slowly, while cancerous tumors are, as a rule, rapid in their growth.

These fibrous tumors have in one respect a very interesting history. They grow slowly, beginning at a particular point, and then spreading to adjacent parts. All the tissues finally become involved. The fibrous infiltration first takes place in the sub-peritoneal connective tissue, and then penetrates the other tissues in succession, till it reaches the mucous coat, which, in its turn, becomes involved in the thickening. The mucous follicles become very much elongated. In their normal condition they are simply short tubules, imbedded in the mucous membrane, but when they are examined under the microscope, in this diseased condition, they appear very much longer, as compared with their normal size. The mucous membrane grows and thickens inwardly, leaving the follicle in its original site, and in this way takes the shape of the tube, apparently increasing the length of the follicle.

After the thickening process has continued, by and by ulceration takes place, the vomiting becomes more and more frequent, the constitution breaks down, and the patient finally dies.

The principal question now for this patient is, What kind of food he must take? This matter he must determine for himself by experience; he must find out what kind of food his stomach will bear best, and then adhere to it. In some cases milk is best, which may be assisted by a little pepsine. In others beef and bread may be digested. In others still, the food must be digested before it is eaten: in such cases peptone is very useful. I recall to mind the case of a young man who suffered from continuous vomiting for ten and twenty days at a time. He was very much exhausted, and could receive no nourishment, as nothing could be kept on the stomach. Being called in consultation, I advised him to take peptone, when the vomiting was stopped, and he recovered. A couple of years afterward I saw him suffering in the same way, and again advised the same treatment. He was unable to procure the peptone at first, however, and other things were substituted, but he did not get well. Finally he was enabled to procure it, and after a short treatment he recovered.

In other words, we must give the meat digested first outside the body, and then we may be able to stop the vomiting. Leuber's preparation, which consists of beef digested in hydrochloric acid, may serve the indications as well as peptone. It is expensive, however, and perhaps a person in this man's circumstances may not be able to afford it; so we will let him try first 10 or 15 grains of pepsine with each meal, and see how he progresses.



## ORIGINAL ARTICLES.

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### CASE OF EMPYEMA, WITH REMARKS CONCERNING PROF. GUIDO BACCCELLI'S METHOD OF DIAGNOSING BETWEEN SEROUS EFFUSION INTO THE PLEURA AND EMPYEMA.

BY

ROBERT REYBURN, A. M., M. D.,

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---

HAVING read with great interest the abstract of Prof. Baccelli's paper on the diagnosis between empyema and thoracic serous effusion, published in *American Journal of Medical Science*, July, 1876, No. 271, I determined to test his theory on the first suitable case that should present itself.

On December 8, 1876, was called in consultation with Dr. Theodore Meade, of this city, to visit a patient under his care, and found him to be a white child of slender physique, and aged about nine years; he was in such a debilitated condition that it was with great difficulty we could induce him to submit to the requisite examination necessary to properly diagnose his case.

On examining the chest, the left side of the thorax was found to be filled with a liquid effusion to the extent of about four-fifths of its capacity; the heart was displaced to the right side, and the apex of the heart could be seen distinctly beating, half an inch to the right of the sternum; pulse was 128, and very weak.

The history of the case seemed to point to a case of empyema. The patient, about eight months previous to my seeing him, had been attacked with acute pleurisy of the left side, with effusion; under treatment he improved, but still continued to suffer more or less since that time. For the month previous to my visit he had shown unmistakable symptoms of hectic fever, accompanied with the usual night sweats and great exhaustion.

Prof. Baccelli states, in the article above quoted, that "the vibrations of sound in liquids are transmitted *inversely* to their density. In a serous fluid, therefore, the sound passes more readily than in a purulent; and it is found that, whereas the whispered voice (*la parola aforicamente sillabata*) can be heard clearly accompanied with bronchial expiration at the base of a serous effusion, the spoken voice is not transmitted, nor bronchial breathing heard, over a purulent exudation."

It was mutually agreed upon, by the attending physician and myself, that the present case would be an excellent one to test Prof. Baccelli's theory; and, in conformity to his directions, the patient was placed in the semi-recumbent position, with his head turned to the opposite side from that in which the effusion had taken place, so that an imaginary line drawn from the mouth of the patient would pass through the centre of the effusion, in reaching the ear of the auscultator (which was placed at the lower portion of the chest).

On causing the patient to whisper the words "ninety and nine," slowly repeated, if the effusion were purulent, we should not, according to his theory, hear the vocal resonance; but, if it should prove to be serous effusion, vocal resonance ought to be heard. The result of the examination showed that vocal resonance was distinctly heard by both physicians present, and this fact seemed to demonstrate the existence of serous effusion within the cavity of the pleura. This result, it will be remembered, was different from that anticipated by the attending physicians, as both had expressed the opinion that this was probably a case of empyema.

The next day, December 9, 1876, a fine canula, 1-16 of an inch in diameter, was passed into the posterior portion of the chest, about one inch below the inferior margin of the scapula, and about  $1\frac{1}{2}$  pints of pure pus were slowly withdrawn.

For reasons connected with the history of the case, this course was deemed better than to remove the fluid by the use of the aspirator.

On the next day the patient's condition was much improved, pulse 112, and respiration was much easier. He was placed upon the use of iron and quinine, with nourishing diet, and was also given 3-grain doses of iodide of potassium combined with 5 grains of muriate of ammonia three times a day. He improved for a time under this treatment, and after a few days was left in charge of the attending physician.

On December 30, 1876, was again requested to see, in consultation, the same patient, and found an evident re-accumulation of the effusion. His case was again carefully auscultated, and the vocal resonance was again distinctly heard, after placing the patient as directed by Prof. Baccelli.

The trocar was again entered at about  $1\frac{1}{2}$  inches below the inferior angle of the scapula, and about  $1\frac{1}{2}$  ounces of pure pus were gradually removed by means of the canula, and about an equal quantity, as was estimated, flowed spontaneously from the opening in the chest made by the trocar.

The patient was then placed under a similar course of medical treatment to that adopted after the first tapping, has continued to improve, and is now convalescent.

The chief reason that has induced me to report the above case has been to base upon it a few remarks concerning the reliability of Prof. Baccelli's method of diagnosing empyema from serous effusion.

As will be seen in the above case, it utterly failed; and I may also here state that I have applied it to three other cases since the one above mentioned, and have found it totally unreliable. It is of course, as a rule, very unwise to judge of the utility of a means of diagnosis by its failure in a few cases, and yet the chief peculiarity of Prof. Baccelli's theory is that he claims that it depends upon a law of physics; and if such were the case, it is evident that it must invariably be true, and cannot admit of exceptions.

If the so-called law of physics in this instance does not prove invariably true, then the professor has either erred in his enunciation of the law, or in its application to the phenomena sought to be explained.



To return to Prof. Bacceli's paper. He commences by stating as an axiom "that the vibrations of sound in liquids are transmitted inversely to their density." That there can be no mistaking the meaning of the professor, is evident from the fact that on this so-called law of physics he bases his whole theory of diagnosing empyema; for he says that "in a serous fluid (that is, the lighter of the two), the sound passes more readily than in a purulent." Now we think that an examination of this axiom will show that the learned professor has erred, and that his statement of the law of conduction of sound in liquids is precisely the reverse of the truth. In "Ganot's Physics" (American Edition, p. 161) will be found a table showing that the ticking of a watch can be heard in air at the distance of 10 feet, in alcohol 13 feet, in oil  $16\frac{1}{2}$  feet, and in water at the distance of 23 feet. I may also refer to "Prof. Tyndall on Sound," or indeed to any text-book on natural philosophy, which will show that sound is transmitted with a loudness proportionate to the density of the liquid, and *not* inversely, as Prof. Bacceli states it. On page 166 of Ganot will also be found a table showing that sound is also transmitted much more rapidly through dense liquids than through rare ones.

Another argument of no little weight in the consideration of this question, and which also tends against Prof. Bacceli's theory, is, there is, after all, not a very great difference between the specific gravities of the fluids found in the cavities of the chest, in cases of empyema and serous effusion. These fluids are, indeed, both formed from the watery parts of the blood; and the only difference that chemistry or the microscope can detect between them is, that the fluid formed in cases of empyema contains a very much larger number of leucocytes, or white blood corpuscles, than the fluid of serous effusion.

Pus, indeed, as found in cases of empyema, in the greater majority of cases results from the transformation, by the action of air or other irritant, of the serous effusion which had been previously poured out into the cavity of the pleura.

It is, to say the least, highly improbable that fluids so nearly alike in their physical properties, as pus and the liquid of serous effusion, should differ so essentially in their propagation of sound.

The last point to be considered is the explanation of the non-transmission of sound in the cases spoken of by Prof. Bacceli. The eminence, as a teacher and lecturer, of the professor entirely precludes the idea of his being mistaken in the facts of the cases detailed by him, and the following is respectfully suggested as an attempt at explanation:—

The first reason that suggests itself why the vocal resonance is not heard in certain cases of empyema and serous effusion is, that its being heard or not depends greatly upon the smaller or larger amount of liquid which may be contained within the pleural cavity. If the amount of serous effusion is moderate in quantity, the vocal resonance is usually increased just as it is in the early stages of pneumonia or in incipient phthisis, and sometimes giving us the sound formerly known as ægophony.

If, on the other hand, the bulk of the effusion is such as to fill, or nearly fill, the pleural sac, thus flattening and compressing the lungs against the posterior and superior parts of the thorax, no vocal resonance is heard; simply because the auscultator's ear is separated by a mass of fluid, 5, 6, or more inches in thickness, from the air tubes which would otherwise conduct the sound to his ear.

The next reason assigned for the non-production of vocal resonance is the compression of the air tubes by layers of lymph deposited on the surfaces of the pleura, thus closing the lumen of the bronchial tubes, and impeding the transmission of sound or air.

The next and last reason we will assign, and one that probably bears an important part in the non-production of vocal resonance, in cases of chronic empyema especially, is the maceration and disorganization of lung texture by the long-continued action of pus or purulent material upon delicate lung-tissue. Whilst we know that pure or laudable pus is innocuous and will not injure the most tender granulations, yet such can scarcely ever be said of the pus found in the chest in cases of empyema. A fluid which is capable of producing such grave constitutional disturbance, and such a high degree of irritative fever, must, by its presence and pressure upon the lung, greatly injure its texture; and that such is the case, is amply shown by the post-mortem examinations of patients dying from empyema.

We believe, therefore, as above stated, that the transmission of vocal resonance depends, not upon the fact of the effused fluid being serous or purulent, but upon its quantity, and upon the amount of compression and injury to its texture sustained by the lung.

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## TRANSLATIONS.

### ON RETENTION OF THE PLACENTA BY ATMOSPHERIC PRESSURE.

Communication to the Medical Society of Rennes.

BY

DR. A. LUTON.

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WHEN, after the expulsion of the fœtus, the placenta in its turn has become detached, there comes a moment when, free from adhesions, it falls with all its weight, and more or less exactly in the centre, into the uterine orifice, which already has a tendency to re-close. If at this instant, and without other precaution, we exercise traction on the umbilical cord, we draw toward the vagina that part of the placenta from which it takes its origin, and leave above more or less of a vacuum, which very soon becomes filled with blood, on account of the condition of things brought about by this manœuvre. This is caused by the same mechanism as that of a rubber cupping-glass, or, better still, and the comparison is here in place, according to the method of action of Simpson's "sucker-tractor."



Undoubtedly this condition of things does not occur very often, for there must be a certain degree of precision in the adaptation of the sides of the placenta to the periphery of the uterine cavity, and, above all, because the blood flows quickly into the open sinuses, to fill up the empty space which is apt to be formed.

In this way we see how there can be a cause of internal post-partum hemorrhage, which we may call "*hemorrhage by aspiration*," and which, in certain cases, may present some gravity.

But suppose that by the arrangement of the parts it so happened that the open sinuses should be situated outside of the sphere of attraction of the placental cupping-glass, or that through some other circumstance the blood could not flow out, notwithstanding this suction, then it would happen that the uterine wall would be drawn toward the vagina, and would become inverted, very much like the finger of a glove turned inside out: it is this which sometimes leads us to believe that there is a real adherence of the placenta, or that it has not yet become detached. Things then remain in this condition until eventually something permits the air to insinuate itself between the two adjacent surfaces, or until the blood, accomplishing the same object, causes an actual separation. In this latter case the superior surface of the placenta forms a pocket occupied by a large clot of blood, or by blood still in the liquid condition.

Thus two accidents may be the result of this separation by a vacuum of the uterine and placental surfaces: partial inversion of the uterus, and intra-uterine hemorrhage.

This happened, more or less completely, in a case which I lately observed, and perhaps is more frequent than we think.

CASE.—A multiparous woman, thirty years of age, was confined about 3 o'clock in the afternoon. Everything passed off well enough, but the after-birth was very slow in being delivered. The midwife who had charge of the confinement, after several efforts at traction, from which she desisted for fear of breaking the cord, which she thought was weak, and because she felt the wall of the uterus coming down, believed that the placenta was adherent, and sent to find me.

It was 6 o'clock in the evening, that is to say, three hours had elapsed since the birth of the child, and we now had more to fear from obstruction at the neck. After some pulls, which I gave quite vigorously, for the cord appeared to me to be very strong, I had not accomplished anything more than the midwife had done, and I very distinctly felt the wall of the uterus sink down at each fresh effort. I then put my right hand into the vagina, and up along the right side of the placenta, in order to detach it; at the same moment a very easy pull made on the cord by the left hand brought the after-birth outside.

Although unaware of what I had done, for I thought that I had in reality broken some close adhesions, I practised the operation in the same way in another quite similar case; and the ease with which the thing was accomplished fully proves that the simple penetration of air allows the two surfaces to separate, and as a consequence that they are kept together only by the atmospheric pressure.

If this be true, it is clear that, when the delivery of the placenta is delayed, it is better at once, not to pull perpendicularly on the cord, on the very centre of the placenta, but well over in an oblique direction: at the same time pass the hand along the side of the organ, as if to lift it up and detach it. It is thus that we detach a rubber cupping-glass applied on a plane surface.

It is probable that the circumstance we have here commented upon is common enough, but, if it has been mentioned before by any one, we are unaware to whom we should give the credit of it. F. A. L.

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## HOSPITAL RECORDS

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### ROOSEVELT HOSPITAL, NEW YORK.

Reported by W. B. BERRY, M. D., House Surgeon.

#### RUPTURE OF URETHRA (TRAUMATIC), POST-PERITONEAL EXTRAVASATION OF URINE. (SERVICE OF DR. WEIR.)

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John Hughes, aged 55.—Wales,—Tailor,—Widower. Admitted May 8th, 1877.

Patient was an inmate of the hospital in November, 1874, suffering from stricture of the urethra, which was relieved by internal urethrotomy. Since leaving the hospital he has been in the habit of using sounds, and up to last January had no trouble in passing urine, but at that time was exposed to cold, and subsequently had severe pain in the back, and several attacks of retention. He says that at such times he passes the sound, and in a short time is able to empty the bladder. On May 6th he endeavored to pass the sound during one of these attacks, and, as he says, made a false passage. He passed blood, but no urine. In the evening he had a severe chill of half an hour's duration, not followed by fever. From the morning of the 7th till late in the afternoon of the 8th he passed scarcely any urine.

On admission patient is very stupid and drowsy, pulse weak and rapid. Abdomen somewhat tympanitic, bowels constipated. *Urine* 1012, alkaline, slight amount of albumen, no casts, some pus.

TREATMENT.—Hot-air bath with a drop of croton oil. The croton oil not operating, it was repeated in two hours, but not until several hours did any evacuation take place, and then only an ordinary fecal discharge. Ordered *Spir. frumenti* four ounces per diem.

*May 9th.*—Patient somewhat relieved; has passed about sixteen ounces of dark-colored urine containing pus. Had a small evacuation of the bowel this morning. The tympanites is increased, and the patient complains of tenderness over the entire abdomen, more marked in the left lumbar region. There is also slight redness of skin in the left groin and in the left lumbar region. Patient was removed out of the ward to the tent.

*May 10th.*—About the same. Had a small passage from the bowel yesterday afternoon after injection. Is passing a fair amount of water



with but little difficulty. The distention of abdomen has increased, and the redness of side is more marked.

*May 11th.*—To-day there is still more tympanites, the redness of side increased. Pulse and temperature normal in the morning, and very slightly elevated at night. An injection of soap-suds was ordered, three pints were thrown into the bowel, and several rather profuse evacuations followed. The matter passed was soft and rather light-colored. There was ordered a poultice of flax-seed meal and mustard over pubis.—Spts. six ounces.

*May 12th.*—Passed a large amount of urine last night. The left groin and lumbar region are very red, oedematous, and painful. A rubber injection tube being gently pushed up the rectum was stopped at about one foot from the anus, two and a half pints of soap-suds and oil were injected, and the gut would hold no more. An aspirator needle was introduced well in at the location of redness in left lumbar region, and several ounces of dark, watery fluid having a fecal odor were removed. Ordered quinine sulphate gr. V ter in die.

*May 13th.*—Has some tenesmus of rectum, but very little passes from the gut.

*May 14th.*—No better. The spot of redness on the left side remains about the same. Percussion over the same space reveals dulness.

3 P.M.—Patient under ether. Present, Drs. Markoe, Sands, Wood, and others. An incision was made, about six inches in length, just above the crest of the ilium of left side, commencing at a point just posterior to middle point of crest of ilium: the knife was brought downward and inward. The integument and superficial fascia being cut through, a large amount of fluid, apparently similar to what had been drawn with the aspirator, gushed out. The cavity being washed out with sol. acid carbolic, 1 to 40, patient was removed to ward 5.

6 P.M.—Recovered from the ether. Pulse 120, and very weak. Temperature  $97\frac{3}{4}^{\circ}$ .

*May 15th.*—There is considerable discharge from the wound of the same character as that which came from it at first. Urine is passed in small quantities through the urethra, but it is necessary to use a catheter twice or three times a day. Patient is very weak. Poultice applied to abdomen.

*May 16th.*—No better. The discharge from the wound is quite free, but the odor is less offensive. The cavity is washed twice a day with sol. carbolic acid, 1 to 40. The tympanites is not at all diminished. Still has rectal tenesmus.

*May 17th.*—Somewhat weaker. At times is not rational. Has diarrhoea and occasional incontinence of feces. The discharges are not altogether watery, as they were yesterday, but more solid and of a clay color. Very little urine is discharged. A thin offensive fluid runs from the wound in considerable quantity. The tympanites still existing, a portion of the gas was let off by an aspirator needle.

*May 18th.*—Patient delirious part of the time. But very little urine is passed through the urethra. The discharge from the side is the same. At five P. M. was almost pulseless, and at seven P. M., death occurred.

**AUTOPSY.**—*May 19th.*—Brain not examined. Heart and lungs normal. Liver normal. Peritoneum congested, and coated with a little fibrine. The large intestine, except the rectum, is much distended with gas. On the left side, behind the peritoneum, is a large sloughy cavity in the lumbar and iliac regions, communicating with the external wound. Over this cavity the intestines and all the soft parts are adherent, thickened and infiltrated with pus. It is by these adhesions that the lower end of the colon is constricted. No ulceration of intestines could be found.

The bladder is moderately distended with urine. The mucous membrane is coated with dirty fibrine and pus. There is an ulcer as large as a ten cent piece in the posterior wall on the left side, which opens into a mass of inflamed tissue. No direct communication with the peritoneal cavity, or with the retro-peritoneal abscess. Ureters dilated. Kidneys show evidence of moderate chronic diffuse nephritis.

**URETHRA.**—A stricture fully one and a half inches in length is found at the bulbous portion of the urethra. The stricture is impermeable except at its very outset for the distance of half an inch. Beneath the mucous membrane of the floor of the stricture is a false passage which commences at the beginning of the stricture anteriorly, emerges, in front of the veru montanum, in the urethral canal, and then pierces the urethral wall again at the side of the veru montanum. It then passes the body of the prostate and makes exit between the prostate anteriorly, and the rectal wall posteriorly, and communicates with the cavity above described.

#### PROLAPSUS ANI TREATED BY STRETCHING OF THE SPHINCTER.

Edward Maney, aged 34, Ireland, married laborer. Admitted August 26th, 1877.

Patient had never had piles or any previous trouble with the anus. On the evening of the 25th he strained very hard while at stool, and noticed a protrusion at the anus, but was unable to replace it. He went about for an hour or two, and the pain and tenesmus became very annoying. He went to stool, and the difficulty became worse. This lasted until 12 M. on the 26th, when he came to the hospital.

On admission, patient has prolapse of the anus. There is a swelling, the size, shape and appearance of a tomato. It is hard, bluish-black and painful, although less so than a few hours ago.

**TREATMENT.**—Attempts were made after elevating the pelvis to replace the protrusion, but without success. It was thought best not to apply ice on account of the danger of gangrene. The patient was then etherized, and the sphincter being thoroughly stretched with the thumbs, the part was replaced. Tannic acid was then placed in the rectum together with ice, and the patient ordered an opium pill.

*August 27th.*—Patient had satisfactory movement of bowel, with no inconvenience. There was no tendency to protrusion.

*August 28th.*—Discharged, cured.



## ST. VINCENT'S HOSPITAL, NEW YORK.

Reported by Dr. Abraham G. Wendell House, Surgeon.

### WOUND OF SCROTUM FOLLOWED BY GANGRENE. (SERVICE OF DR. JAS. L. LITTLE.)

R. McC., aged 40, born in Ireland, married. Laborer. Admitted into the hospital February 23, 1877.—Patient states that, while driving a carriage, and making an attempt to turn a corner, one of the wheels of the carriage caught on the rail of the street-car track, and he was thrown off; he fell on his back, with his head in the direction in which the horses were going, in such a position that the hind wheel ran up and struck him in the perinæum. He was brought up immediately to this hospital.

On examination, the left testicle was found hanging out from the scrotum; the wound through which it had protruded looked as smooth and even as though it had been made with a sharp scalpel. This wound was situated about one-half inch to the left of the anus, in a line parallel with the raphe.

There were no other wounds or marks of the wheel in any other place that could be found, not as much as a contusion, although he says the wheel passed diagonally over him.

The testicle was but slightly injured, and was replaced within the scrotum, and the wound through which it protruded closed up with three interrupted sutures, cold water dressings were applied, and the scrotum supported with a bandage. There was no hemorrhage, and he did not suffer much pain, but felt very sick.

25th.—He passed a bad night, complaining of more pain, appetite good, tongue clean, pulse 80; temperature 99 1-2. Ordered anodynes to relieve pain, and continue same dressing; he tried to urinate, but found he could not, when the house-surgeon relieved him by the use of the catheter.

26th.—Retention continues; the scrotum looks black and swollen; dressings changed to carbolic acid solution; pulse 85, temperature 100; the left side of the scrotum was lanced, and about one ounce of pus evacuated.

27th.—The scrotum is black, very offensive to the smell; no suppuration at the wound; his bladder has to be relieved yet by the catheter; pulse 85, temperature 100½.

March 1st.—There is some tendency to diarrhœa; line of demarcation well established; he has passed to-day his urine per urethram, not suffering any pain; he is very thirsty, and somewhat restless. Same dressings continued; pulse 88, temperature 101.

2d.—The house surgeon removed all the scrotum up to the line of demarcation. The slough formed about three-fourths of all the scrotum, and when removed, the testicles were left bare, and hanging out. The tunica albuginea testis was sound and healthy. The testicles were covered with a piece of lint, soaked in carbolic acid solution, and drawn

up by the same dressing; there was a considerable swelling along the spermatic cords, and some redness, and also swelling in the inguinal regions, which were dressed with lead and opium lotion. The parts were ordered to be dressed four times a day, in order to insure cleanliness; diarrhoea has stopped; pulse 85, temperature 100.

6th.—Patient doing well, he passes his urine all right; bowels act normally; appetite very good; sleeps well; the granulations are coming up nicely and look healthy; pulse 78, temperature 98½.

19th.—His condition to-day is excellent; the open surface is not more than one-half as large as when the scrotum was first removed; the outer sides of both testicles are covered over; the granulations look very healthy. For the last five days we have begun to strap and try to bring together by means of adhesive plaster the edges of the wound. Temperature and pulse have been normal since the 9th.

May 9th.—To-day the patient was discharged entirely well and in good condition. The treatment for the last four weeks consisted only of careful strapping of the scrotum, and it continued to heal kindly and permanently until it was entirely well, with but little deformity of the parts, except a shortening of the scrotum. There was but a small cicatrix left on the centre; the parts were not tender, and the testicles were movable and normal in their condition. His general condition was exceedingly good and his appetite excellent, and he returned home like a new man.

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## PERISCOPE.

### COLLABORATORS.

*Dermatology*.—HENRY G. PIFFARD, M.D., Professor of Dermatology in the University of New York.

*Diseases of Women and Children*.—FRANK P. FOSTER, M.D., Gynecologist to the New York Hospital Out-door Department.

*General Surgery*.—EDWARD J. BIRMINGHAM, M.D., Surgeon to Bellevue Hospital Out-door Department.

*Genito-Urinary Diseases and Syphilis*.—ROBERT W. TAYLOR, M.D., Professor of Dermatology in the University of Vermont.

*Orthopedic Surgery*.—NEWTON M. SHAFTER, M.D., Surgeon to the New York Orthopedic Dispensary and Hospital.

*Practical Medicine*.—E. DARWIN HUDSON, JR., M.D., Professor of Practice of Medicine, Woman's Medical College, New York.

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## SUMMARY OF THE THERAPEUTIC EFFECTS OF SALICYLIC ACID.

BY

J. HUGHES BENNETT. (*London Medical Record*, August 15, 1877, p. 398.)

DR. BENNETT, after reviewing the work of M. See on "Salicylic Acid and the Salicylates," in conclusion sums up the therapeutical value of Salicylic Acid.



1. An external antiseptic, it has no advantage over others except its freedom from smell. As an internal disinfectant, it has no apparent effect.

2. As an antipyretic, its properties are doubtful.

3. In acute articular rheumatism its effects are sure and rapid, and a cure in this disease may be confidently prognosed in from two to four days.

4. It greatly relieves chronic rheumatism, diminishes the pain and swelling of the joints, and favors the movement of the limbs, even after years of suffering.

5. In acute and chronic gout its action is the most remarkable, causing the former to disappear in two or three days, moderating and even curing all the symptoms of the latter.

6. It is employed with benefit in neuralgiæ of all kinds.

7. It acts as a sedative in painful affections of the spinal cord.

E. D. H., JR.

## ENDOCARDIAL VEGETATIONS AT THE ORIFICE OF THE PULMONARY ARTERY.

BY

DR. DUJARDIN—BEAUMETZ,

Physician to Hospital Saint Antoine. (*L'Union Médicale*, No. 100, August, 1877.)

THE history of endocardial vegetation, thanks to the numerous treatises and communications devoted to the subject, grows daily more complete. And the fact that we have perused the increasing number of works treating of this affection, makes us the more interested in this case of an endocardial vegetation exclusively limited to the sigmoid valves of the pulmonary artery. It is an occurrence, of which I have found no other case in science, notwithstanding the voluminous literature. It is a fact that endocardial vegetation, although frequently found in the left heart, is rarely seen in the right ventricle, and, above all, limited to the pulmonary orifice. Again, the diseases of the orifice are, with the exception of congenital affections, extremely rare in adults. (1) Erichsen has collected, at great pains, nine cases of disease of the pulmonary valve. (2) Wahl has detected, in an acute endocarditis, inflammation of the sigmoid pulmonary valves. (3) Meynat has also made known a case of stenosis of the pulmonary orifice, following a valvular endocarditis. (4) Martin Bernhardt has more recently published an observation of ulcerating endocarditis and of the pulmonary artery. But these are exceptional and rare occurrences, and do not mention endocardial vegetation.

CASE.—M. C., a sculptor, aged 21. He entered hospital Saint Antoine, ward Saint Lazare, on May 5, 1877, in a state of extreme feebleness, suffering from palpitation and distress in the precordial region. The patient, though never sick in childhood, had never been strong. He had been addicted to sexual excess and much drink. Three months previously, after one of his habitual debauches, returning home, he was

caught in a drenching rain. The following day he was taken with headache, vomiting and fever. Yet he was able to continue at work for several days, retaining, however, a persistent headache and general *malaise*. This for three days, at the end of which, he was seized with constricting pains in the chest and labored respiration. On March 27, the affection was rapidly abating. On March 30, a new chill, with elevation of temperature. Nothing new detected in the chest. The heart-sounds were feeble, but distinct at the apex. At the base of the xiphoid appendix there existed a diastolic *souffle* during expiration, and stronger toward the end of expiration.

*April 3d.*—A chill and fever.

*April 14th.*—Death.

**AUTOPSY.**—Pericardium slightly adherent throughout. Heart large and soft; valves of pulmonary artery diseased. The middle valve is fissured, and there are many pendent irregular masses covered by coagula.

E. D. II., Jr.

## THE OPERATIVE TREATMENT OF GENU-VALGUM.

BY

ALEXANDER OGSTON, M. D. (*Edinburgh Medical Journal*, Mar., 1877.)

A BOY of 18, presenting a bad case of knock-knee of 12 years standing, was admitted into the Aberdeen Infirmary on the 9th of April, 1876. The patient was a robust, strongly muscular lad, well nourished, but, owing to the deformity, short in stature. The deformity was so great, that, when the patient stood erect, the hand could "be passed through between the transposed knees." Mechanical treatment was used for some time, until it became evident that it was useless to pursue it further, and operative measures were then decided upon. On May 17th, 1876, the patient was chloroformed, and the right knee was flexed and the thigh turned outward. A long and strong tenotomy knife (Adams's) was introduced through the skin,  $3\frac{1}{2}$  inches above the tip of the internal condyle on the inner side of the thigh, and so far back as to be opposite the ridge of bone running between the linea aspera and the condyle. The blade was then carried "forward, downward and outward," over the front of the femur. When the point of the blade could be felt under the skin, in the groove between the condyles (the normal position of the patella in the flexed position), the cutting edge was pressed against the bone, and the soft parts and periosteum divided in withdrawing the knife. The external wound thus made was one third of an inch long, and terminated in the cavity of the joint. Adams's saw for subcutaneous division of the neck of the femur was then introduced, and as soon as it was estimated that the condyle was almost entirely separated, and that the saw was approximating the popliteal space, it was withdrawn. The knee was now completely extended, and the limb forcibly straightened laterally; the hands of the operator forming the power, and his knee the fulcrum, by which this part of the operation was accomplished. The undivided por-



tion of the condyle gave way with a snap upon the application of a moderate amount of force, and the limb immediately became straight. The limb was then simply bandaged to a long Liston splint, and the patient placed in the recumbent position. The other limb was similarly operated upon, on June 6th. Lister's antiseptic measures were carefully carried out, and the reaction in each case was almost *nil*. After the first operation the temperature never rose above  $99.8^{\circ}$ , in the second reaching  $100^{\circ}$  only. The apparatus was removed after the first operation on the sixteenth day, and passive motion resorted to. Fifteen days after the second operation passive movements were also instituted. There was never any pain, and five weeks after the last operation, the patient was allowed to walk. The movements of the limbs became perfectly normal (the detached condyles uniting perfectly in their acquired positions); and on July 21st, 1876, the patient was discharged, "walking perfectly."—N. M. S.

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## OBSERVATION ON PERICARDITIS WITH EFFUSION.

BY

MM. MONTEZ AND DUBIEF. (*Lyon Medical*, Aug. 19th, 1877).

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THIS case is doubly remarkable, in the first instance, as one of acute articular rheumatism, terminating in death, and secondly, that its essential complication—pericarditis with effusion—attained such proportions that, despite a most careful physical diagnosis, it simulated a coexisting pleurisy.

CASE.—The patient, L. C., a journalist, aged 18, entered the Hotel Dieu, for articular pains of three days' duration, preceded by rigor, and subsequent fever and sweating. The articular inflammation became general, involving the joints of all the fingers and toes. The fever pursued a natural course for ten days, and the symptoms were ameliorated, when slight dyspnœa developed. Auscultation of the heart detected a manifest friction bruit. The dyspnœa not abating for three or four days, attention was directed to the lung. Physical evidences existed sufficient to warrant the diagnosis of pleuritic effusion and pericardial effusion at the same time: namely, dulness over the lower half of the left lung, normal resonance over the superior half—the dulness continued undiminished around to the side. In front, the precordial dulness seemed but little extended beyond its natural limits. On auscultation there was a total absence of vesicular murmur over the same area, and bronchial *souffle* was quite distinct. The normal vocal fremitus had not been altered. The abrupt transition from pleuritic dulness to a very nearly normal resonance left no doubt as to pleurisy. The sounds of the heart were distinctly heard, and its movements definitely perceived by palpation. The pulse was very small and compressible. There was great general debility. On the eighteenth day after admission, occurred intense chills, prostration, and an intercurrent

attack of facial erysipelas, terminating in three days. On the twenty-sixth day he was transferred to another hospital, on account of repairs, and was able to walk without assistance. He now complained of extreme oppression, and two blisters were applied, one over the heart, the other on his back. At the onset of his disease he had taken salicylic acid, in 5 grammes doses, for several days, without benefit, but now was on tonics, alkalies and quinine. Three days further on he was seized with asphyxia. He reclined only on the left side, which betrayed no trace of thoracic distention; his face and extremities were cold and a little cyanosed, his pulse thready and very rapid. The heart-sounds were imperceptible, but the heart-beat distinct upon palpation. The pleural dulness had preserved the same limits as at the onset. On the thirtieth day again examined. The decubitus was now sometimes dorsal, sometimes lateral. The heart was not displaced, and its pulsations were felt near the left nipple; always the same dulness at the side and behind. In front it reached up to within two fingers of the left clavicle, but did not extend beyond the right border of the sternum. Died.

**AUTOPSY.**—On removal of the anterior thoracic wall, an immense distention of the pericardium was found completely concealing the left lung. The sac presented a convex surface of 0.16 cent., both vertically and horizontally; it extended in the first direction from the sternal notch to the xiphoid appendix, and in the second from the right border of the sternum to the axillary line. The left lung was in a state of atelectasis, and completely folded back against the spinal column. A few adhesions existed in the left pleura, which contained but little more than a teaspoonful or two of serous fluid. Otherwise the pleura and lungs were healthy and not congested. Firm adhesions were observed between the concave surface of the diaphragm and the corresponding convexity of the liver.

The pericardium formed an enormous sac, having a circumference of 48 centimetres transversely. It was opened, and contained about 600 grammes of a very thin, purulent liquid. The tissues of the pericardial membrane were considerably thinned; in some places reduced as thin as 0.01 centimetre. Its external surface was very vascular, and adherent at many points to the lungs and pleura. Its inner surface was unequal, studded with fibrinous deposits, which could be removed by scraping, and found to be composed of softened fibrillated tissue, breaking down into molecular detritus, and enclosing pus cells, mostly undergoing caseation. The form of the heart was peculiarly modified; it was elongated vertically; its apex was bound to the pericardial wall by a very slender false membrane.

E. D. H., Jr.

## THE TREATMENT OF ANGULAR CURVATURE OF THE SPINE BY A GUTTA-PERCHA MOULD.

BY

THOS. JAMES WALKER, M.D. (*The Lancet*, July 5, 1877.)

DR. WALKER gives the following rules for the application of the splint which he uses in his practice:—



1. To insure sufficient strength, employ a sheet of gutta-percha, about one-fourth of an inch thick.—2. Take the following measurements: (*a*) from sacrum to vertebra prominens; (*b*) around the back of the pelvis, from a point about an inch anterior to the spine of the ileum to a corresponding point on the opposite side; and (*c*) around the back of the thorax, from about the situation of the nipple to the corresponding point on the opposite side. Cut the gutta-percha in accordance with these measurements, allowing a margin for its shrinking, and also cut away the top edge, so as to permit of its passing under the arm.—3. To insure an accurate mould, the patient should be stripped, and seated at the edge of a feather bed; three or four strips of flannel, four or five inches wide, and long enough to surround the patient's body and cross in front, are to be arranged like a many-tailed bandage, and so placed, that, when the patient lies down, he should rest upon them. The gutta-percha softened in water (135° F.) should be lifted out of the water on a sheet of wash-leather, and laid carefully (the chamois surface upward) on the strips of flannel. The patient is now placed upon the splint—care being taken to have the splint occupy the position intended. The gutta-percha is then rapidly folded around the hips, waist and thorax, being, while soft, firmly pressed in at the waist. The "many-tailed bandage" is then made to complete the circumference of the body, and bound tightly, especially around the waist.—4. When the splint has hardened, it is removed and modified, as indicated, at the irregular points, and a "front" attached to it with eyelets on each side, so that it may be tightly laced; and to the middle of the top edge of the splint are attached two strong straps which cross over the shoulders and buckle in front.

The utility of the apparatus depends upon its action "as a section of an inverted cone" and its careful adjustment, care being taken to mould the splint accurately to the hips and waist, and to bring its anterior edge beyond the angle of the ribs. It should be always well laced in front.

N. M. S.

#### STAHL ON THE ANATOMY AND DIAGNOSIS OF OVARIAN TUMORS, DEVELOPED PARTLY WITHIN AND PARTLY WITHOUT THE PERITONEUM.

IN No. 8 of the *Centralblatt für Gynäkologie*, July 7, 1877, p. 145, Dr. Karl Stahl, of Freiburg, relates the following case: On the 25th of May, 1877, Prof. Hegar operated for an ovarian tumor, which, on account of its being developed partly within and partly without the peritoneum, is of importance in regard to the anatomy and diagnosis of such tumors. Before the operation the following points were conspicuous: abdomen unequally distended, most prominent below on the right side; somewhat below the navel a furrow passed across from right to left, over the tumor; at the lower border of the groove a sharply defined transverse band was perceptible to the eye and the touch when ever the patient strained, coughed, or in any other way brought her abdominal muscles into action; the portion of the tumor situated below

this groove was more tense and firm, and less distinctly fluctuating, whilst the upper portion fluctuated in great, clear waves; on combined examination by the vagina and the rectum, the whole uterus could easily be grasped; from the right angle of the fundus a tense, cord-like membrane extended a finger's length to the tumor.

The diagnosis was, a multilocular cystoma of the right ovary, with a long, broad pedicle. The operation fully confirmed this diagnosis, but revealed unexpected facts in regard to the mode of development of the tumor, which, moreover, explained the peculiar external features. Although numerous cyst-compartments were present, yet the tumor was really made up of two parts—a lower one, of extra-peritoneal, and an upper one of intra-peritoneal development. The former had so raised the anterior fold of the broad ligament that the normal pouch between the broad ligament and the anterior wall of the abdomen was effaced. The tumor had forced itself forward and upward, between the peritoneum and the fascia transversalis, almost to the level of the umbilicus; had extended laterally to the lateral wall of the pelvis, and reached downward nearly to the upper edge of the foramen ischiadicum. The posterior fold of the broad ligament was unaltered. The tumor had not unfolded the median portion of the broad ligament, but between it and the uterus was found a well-defined pedicle, of the character above described. The upper portion of the tumor was wholly intra-peritoneal. It was separated from the lower portion by a pronounced furrow, which was still more sharply defined by a tendinous, thickened, transverse band about a centimetre in breadth. In accordance with these relations, the abdominal cavity, when opened, was found divided into an upper and a lower space, by a sort of diaphragm (the elevated anterior fold of the broad ligament).

A transverse furrow may, indeed, be occasioned by an ordinary cystic tumor, but scarcely one so sharply marked as in this case. More important was the sharp and tense transverse band at the lower part of the groove, on forced straining, *i. e.*, increase of the intra-abdominal pressure. It was due to an impulse exerted upon the intra-peritoneal portion of the tumor, whilst the increased pressure did not alter either the position or the shape of the extra-peritoneal portion shut in between the pelvis and the peritoneum. The greater firmness of the lower portion of the tumor cannot be ascribed to its containing a greater number of small cysts, or to their contents being thicker, — for below, as well as above, there was a large principal cyst, with thin contents, — but to the great distension of the lower cyst-wall by the dense, thickened peritoneum overlying it. Although the greatest carefulness is necessary to make this difference in consistence of value in diagnosis, yet, in conjunction with the transverse furrow, and the sharply-defined band on straining, it may direct attention to the possibility, and even the probability, of such a development, and under certain circumstances, which were wanting in this case, may make the diagnosis sure, by reason of the dense connection of the tumor with the lateral border of the uterus or the lateral wall of the pelvis. Further observations are necessary to show whether the transverse band is a constant feature.



## BENICKE ON THE TREATMENT OF CANCER OF THE UTERUS DURING PREGNANCY.

IN the *Zeitschrift für Geburtshülfe und Gynækologie*, 1 Band, 2 Heft, 1877, p. 337, Dr. Fritz Benicke gives five cases of cancer of the uterus, in which operative interference was practised during pregnancy. The first case was that of a woman in the seventh month of gestation, with carcinoma of the cervix, affecting chiefly the posterior lip, and traceable within the cervical canal nearly to the os internum. It bled easily on examination. The neoplasm was scooped out, the bleeding being slight during and after the operation. Six days afterward the patient gave birth to a living child, labor being easy, and not attended with undue loss of blood. The child died in the course of a few days. The disease returned in about three months, affecting the vagina, the vaginal portion of the cervix having been destroyed. In the second case, also, the disease was seated chiefly in the posterior lip, with an ulcer on the anterior lip. In the fifth month of pregnancy the neoplasm was removed as thoroughly as possibly with scissors and a sharp scoop, and the ulcer of the anterior lip excised. The bleeding was easily checked. The patient remained quiet in bed for eight days, and her pregnancy advanced to term without further hemorrhage or discharge. A living child was born six hours after the pains began. The placenta was said to have been adherent, and was removed by the physician. Eight weeks after delivery the woman complained of a watery, offensive discharge, with slight irregular hemorrhages and pain, which had existed for about three weeks. The vaginal portion of the cervix was found changed into a tumor as large as a small apple, with degeneration of the anterior lip also.

In the third case the vagina was filled with a firm, nodular tumor, with a fissured surface, proceeding from the posterior lip of the cervix. The anterior lip and the vaginal walls seemed intact. In the sixth month of gestation the tumor was removed by means of the écraseur, making an opening as large as a bean into Douglas's space. The hemorrhage was high. On the second day severe pain began in the back and abdomen, with high fever. These symptoms continued for nine days, when a dead child was expelled. The labor was normal, and the bleeding slight. On the fifth day after delivery there were two well-marked eclamptic seizures. The urine was highly albuminous, but no casts were discovered. The attacks were not repeated, and five days later the patient was discharged.

In the fourth case the disease was most marked in the posterior lip, forming a tumor about as large as a pigeon's egg. Near the close of pregnancy the mass was removed with scissors and a sharp scoop. Four days afterward a living child was born, after a rapid labor, and exactly a drop of blood was lost. In about four months the operation was repeated, on account of a return of the disease.

In the fifth case the vaginal portion of the cervix was highly swollen and edematous, with eversion of the lips, so that with the speculum the cervical membrane could be seen of a dusky-red color and granular. A

small piece of it was excised, and shown by the microscope to be undoubtedly carcinomatous. In the fifth month of pregnancy the cervix was amputated with the knife, and the cut surface freely treated with the hot iron. The bleeding was moderate. Labor came on the next day. The placenta, being rather firmly adherent, could not be expressed, and had to be extracted with the hand. A highly exuberant decidua was found on the secundines, and microscopical examination revealed diffuse decidual endometritis. Five months afterward there was slight leucorrhœa, the os externum admitted the finger, the vaginal portion of the cervix was wholly wanting, and the parts looked well on examination with the speculum.

The author urges more frequent resort to removal of the disease during pregnancy, provided it have not yet exceeded the limits of the vaginal portion of the cervix, as it materially ameliorates the result of parturition to both mother and child.

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### ABOUT BOOKS.

*The Practitioner's Reference Book.* By Richard J. Dunglison, M. D. 8vo, pp. 341. Philadelphia, Lindsay & Blakiston, 1877.

THE author of this compilation, in his preface, "indulges the hope that it may become an indispensable companion, as a handy-book for every-day consultation." We regret that we cannot see such extraordinary merit in the work as he does; and that he should have descended to inflicting upon the profession such a miserable apology for a standard publication as this work is. In the opening pages we are treated to a translation of the Hippocratic oath, then follow tables of weights and measures, with such information in regard to the solubility of medicines, doses, baths, incompatibles, and prescribing, as can be found in any text-book on materia medica. This is followed by some observations on the eruptive fevers, obstetric memoranda, rules for the examination of the urine, toxicology, and dietetic rules; and the closing pages are devoted to directions for holding an autopsy.

These are all subjects that the practitioner should be thoroughly conversant with, and the student should not receive his information from a work of this kind. In the usual college course all these points will be scientifically taught, as his training requires. We think that it is just such *rade mecum* compilations that make our slipshod practitioners, and consider it our duty to frown down all such books, and to discourage the manufacturers of them. We therefore strongly recommend our readers not to waste their money in purchasing this volume. There is no necessity for it, and it is not a work that reflects credit on American medical literature. The publishers have presented it in the usual handsome style of editions emanating from their house.

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### ERRATUM.

IN the last number of the ARCHIVES, page 174, ninth line from top, *let tar tansy poultice* should read *hot tansy poultice*.



# THE HOSPITAL GAZETTE

AND

## ARCHIVES OF CLINICAL SURGERY,

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EDITED BY

Edward J. Bermingham, M. D., and Frederick A. Lyons, M. D.

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### EDITORIAL.

#### DR. C. G. POLK AND "THE REGULAR MEDICAL PROFESSION."

It is not often that it devolves upon an editor of a journal to rebuke such unblushing effrontery and falsehood as is presented to our readers in this number. Dr. C. G. Polk, of Philadelphia, sends us a letter and communication, requesting us to publish them as other communications are published, and telling us "that it does not advertise anybody." About the same time that we received this letter from Dr. Polk we

received, in exchange, many medical journals, some of which contain advertisements for the sale of Dr. Polk's "Glycerite of Kephaine." In the *Nashville Journal of Medicine and Surgery*, vol. xx, p. 106, is an article written by Dr. Polk, in which he says: "These three cases tell the great power exerted over tubercular disease by the hypophosphites isolated from brain and wheat"—and imposes the responsibility upon every physician of giving this brain compound—'Glycerite of Kephaine,' the same that is advertised by Dr. Polk, not only in the journals, but in circulars scattered before the public.

We are always glad, in every way, to advertise new and valuable medicines, and we now, to the fullest extent, advertise Dr. Polk's worthless nostrum and his falsehoods, but not in the ignorant manner in which Dr. Polk intended. We have not been imposed upon, as many respectable journals have been, by Dr. Polk's effrontery.

The question has been asked us, "Who is Dr. C. G. Polk, and what is his record?"

"The regular medical profession, to the decision of which I am ever ready to submit" (Polk in *Ph. Medical Times*), will find Dr. Polk's name as Professor of Surgery in the Eclectic Medical College of Pennsylvania, a branch of the American University of Philadelphia; and Professor in the University College of Pharmacy, another branch of the same institution. Last year a friend of ours went to Europe, and on the same vessel was a Frenchman who was taking home with him a diploma from the American University of Philadelphia, constituting him a doctor of medicine. This man said that he had not been in the United States one month. Our friend wrote to the American ambassador at Paris on the subject. The diploma was shown to many of the passengers on the vessel, some of whom reside in this city.

In March, 1875, the *Druggists' Circular* had a short article from Dr. Polk, headed "Tribasic Hypophosphite of Olein and Glycerine," of which he claimed to be the discoverer. This whole article was stolen from Dr. Percy's "Prize Essay of the *Am. Med. Ass.*," on "Phosphorus," published in 1872. In the October number of the same journal he has another article headed "Hypophosphite of Olein," which again is nothing but a plagiarism from Percy's essay. In this article he disclaims ever having heard of Percy's discoveries till the present time. We understand that over ten thousand copies of Dr. Percy's essay on phosphorus were presented to the profession. Is it to be presumed that an *eminent* professor of a college could remain ignorant of so widely-disseminated a book, and one which contained all that the *eminent* professor had written upon or was seeking? This *innocent* denial is evidently very weak; nobody will believe him.

In *New Remedies*, for Nov., 1876, Dr. Polk changes the name, and again borrows from Percy's small pamphlet sent to the profession the name "Protagon," but acknowledges it to be the same substance as that before written on. This he now claims to have used "over a period of eighteen years," thus robbing Churchill of his discovery of the value of hypophosphites in phthisis and kindred diseases.



In all that he has since written, any one who has read Percy's essay can see from whence he derives what little knowledge he possesses. In *The Medical Record* Percy "coins" a new word: "Phosphoid." Polk steals it the next week.

In the *Nashville Journal of Medicine and Surgery*, vol. xx, p. 108, he claims to have used these brain hypophosphites in May, 1859, and says that a doctor of his acquaintance can give his experience with "Glycerite of Kepheline," of Polk's manufactory, in August, 1872. The world-renowned and indefatigable chemist, Thudichum, in 1874, published his researches on the "Chemical Constitution of the Brain;" he gives an elaborate analysis of kephaline, and says that "it is now described for the first time in brain matter." Truly the discoveries of Churchill, of Percy, of Thudichum, are as nothing compared to the discoveries of this eminent professor of a college. He has learned, and taught, how quickly to gain that which other people are long in acquiring, and work diligently for. Discoveries and diplomas are not worth striving for, when they can be got by shorter means.

The chemical blunders and errors made by Dr. Polk in his writings in the journals before us would be worth noticing if made by anybody else, but errors need not degenerate into falsehoods.

We have taken the trouble to get an analysis made of his so-called "Glycerite of Kepheline," and it does not in any manner answer the tests and re-agents given by Thudichum. We have tried it, and it has failed in our hands to do the slightest good.

Dr. Polk has tried dishonestly to use our journal for his own advertisement; we do not intend tamely to submit to such insults, unless it would widely benefit the profession. We learn, upon inquiry amongst our fellow-laborers, that Dr. Polk's articles have been refused admission into several respectable journals: they probably know why.

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DR. WM. H. THOMSON'S "Lectures on Opium as a Stimulant" will be continued in our next number.

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PROF. FRANK H. HAMILTON will hold surgical clinics at Bellevue Hospital on Wednesdays, at 2½ o'clock, during November and December.

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## LECTURES.

### CLINICAL REMARKS ON VAGINISMUS.

Delivered at the College of Physicians and Surgeons, New York,

BY

T. GAILLARD THOMAS, M. D.,

Professor of Obstetrics and Diseases of Women and Children.

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THE next patient, gentlemen, is Rebecca G., colored, aged 31, born in the United States, and has been married eleven years. She has never had a child or a miscarriage; in other words, she has been married eleven years,

and has never been pregnant. On questioning her, we find that she has all the symptoms of dyspareunia, coitus never having been accomplished. In every respect the patient looks apparently healthy, but coitus is utterly impossible. Now, this condition is a very important one, as these cases of difficult, painful, and even impossible coition are by no means rare, and at the same time there is no class of cases that yield more satisfactory results to treatment. During the winter I shall show you so many cases that we can do little or nothing for, that it is a real pleasure to show you a case that offers such excellent prospects of cure; it is like coming to an oasis in the desert. Take a patient like the one before us, in whom all the organs seem natural, and I would be willing to guarantee a cure.

From the time of marriage every attempt at coition has caused the patient not only the most intense physical pain, but likewise extreme nervous trepidation, so that the mere mention of the act by her husband produced excitement. The slightest contact with the parts produced pain, and the physician, merely pressing his finger on the parts, caused her to cry out. This is not a mental condition, but is the result of actual physical suffering. In order to make an examination, the patient was placed on her back, the thighs separated, and the labia parted by the fingers. A distinct and perfect hymen was then disclosed.

As I separated the labia she did not complain of any pain; then holding them open, I moistened the pulp of the finger, and laid it on the hymen, when she immediately complained of the most intense pain. I then carried the finger further up, and felt it closely clasped by the muscles of the parts, but pushing into the vagina occasioned suffering of such intense character that I was obliged to discontinue. At the orifice of the urethra I discovered a small urethral caruncle, which is a sort of mucous polypus growing from the membrane of that canal. Sometimes these caruncles cause the difficulty from which this patient suffers, but it is probably not so in this case. If I had put the patient under the influence of ether, there would have been no degree of spasm, and I could have mapped out the uterus completely, but the case is so evident that such a proceeding was not necessary.

This disease has been known for a number of years. Burns, a Scotch surgeon, described it, and considered it a kind of neural trouble, believing that the pudic nerve was particularly concerned. Several French writers have also made observations upon it. Dr. Marion Sims described it admirably, and gave to it the name of *Vaginismus*, which is so characteristic, and answers so well to the condition, that it has retained this appellation. In these cases the hymen is usually partly broken by attempts at coitus, which is prevented by spasm of the muscles at the outlet of the pelvis.

It has been said to be due to a neural condition in which the pudic nerve is involved, but it is probably the result of either one of two conditions: 1st, a very small vaginal entrance, penetration of which throws the muscles into spasm; or, 2d, a hyperæsthetic condition of the hymen and surrounding parts, the slightest irritation of which excites violent spasmodic contractions.



And now a few words in regard to treatment: I repeat it that this patient is entirely curable, and we will rapidly describe the manner of proceeding. First, put the patient on her back, and bring her under the influence of ether. Flex the thighs, separate the labia majora, and give each side in charge of an assistant. Then remove the urethral caruncle completely by a pair of scissors. The hemorrhage is very slight, and will not interfere with the operation. Now catch, with a pair of mouse-toothed forceps, the upper edge of the hymen, and by means of a pair of scissors snip it completely out. We should be careful not to leave a particle behind. Some think that this is not necessary, but the operation gives such excellent results, when performed in this way, that it should always be done. Any hemorrhage can easily be stopped; an arterial twig may be twisted or tied, and oozing can be readily controlled. After the hymen is removed, the entrance to the vagina should be made larger. This may be accomplished in this way: place the fingers of the assistants on each side of the vagina, and put it on the stretch, then make a few small incisions with a bistoury, one downward into the perineal body, and a slight one on each side. When this is finished, take Sims' glass vaginal plug, grease it, and pass it well into the vagina. Then take a strip of adhesive plaster of about two fingers' breadth, and attaching it behind along the sacrum, bring it round and fasten it in front. A small hole should be made in the situation of the urethra, in order to pass the catheter. This is much better than an ordinary bandage, as the fastening is secure, and the plug cannot come out, no matter how the patient moves or tosses in bed. The plug should be kept in for three or four days without removal, and during this time no injection is necessary. At the end of this period the plug may be removed, the vagina syringed out, and the instrument then replaced. After about ten days the patient will be able to pass the plug herself without any trouble, keeping it in five or six hours at a time. Continuing to use it in this way, at the end of four to six weeks the patient can be without it entirely, and will be well of all her former difficulty. I have performed this operation a great many times, and I have yet to meet with the first case of failure.

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## CLINICAL LECTURE ON CHRONIC MALARIAL POISONING

Delivered at the University Medical College, New York,

BY

ALFRED L. LOOMIS, M. D., Professor of Pathology and Practice of Medicine.

GENTLEMEN:—This patient, who states that he is 35 years old, says he has been sick since last April; that at that time, after an unusual exposure to wet and cold, he was taken suddenly with a severe pain in the right side, which compelled him to go to bed. He had a hacking cough with little or no expectoration; he was confined to his bed about two weeks before he expectorated anything after coughing, and then the sputa consisted of a "greyish slime." He was unable to leave his house for about a month and a half. Since that time he has not felt well. Though

his cough has not troubled him, and he has not lost much flesh, nevertheless he has felt weak and unable to work, being fatigued after slight exertion.

The first question that arises in connection with this history is, What was the nature of this attack? Pain coming on suddenly in one side always leads one to pleurisy. It is true that in pneumonia we have pain in the affected side, but not until the pleura becomes involved. In bronchitis, patients will have pain in the chest, but the pain is located behind the sternum. When pain in the chest is severe, and localized on one side, if you exclude chronic affections, such as intercostal neuralgia, pleurodynia, aneurism, and the like, you are led to pleurisy as its cause; without a physical examination of the chest you will be unable to remove the doubt. We will, therefore, submit the chest of this patient to a physical examination, before proceeding with his history. On inspection we do not notice much, except a slight shrinking on the right side. We perceive that the right clavicle is a little more prominent than the left. The chest, however, expands well and evenly on both sides. You notice that the right shoulder is a little lower than the left, but this is a very common occurrence, and usually depends on slight lateral curvature of the spine. Both scapulae move well, and there is not much difference between the motion on the two sides. Now the free movement of the scapulae, the absence of retraction on either side, and a free expansion of the chest on both sides, lead us to conclude that there is no extensive disease of the lungs or pleurae. We can assert this from inspection alone. On palpation, we find the vocal fremitus to be feeble, but this may be due to the naturally high pitch of the patient's voice. The tones are not very sonorous, and this fact would account for the alteration from the ordinary fremitus. On comparing the two sides, we do not find any difference. On percussion, we find very fair resonance, both anteriorly and posteriorly, and little or no difference between the two sides. On auscultation the vesicular murmur is heard all over the chest, though, perhaps, it is not quite as intense in the right infra scapular region as in the left. There is a slight pleuritic friction sound also present in the right infra scapular region. Now the question comes, Is it possible to have a pleuritic friction sound after so long a time has elapsed since the primary attack of pleurisy? This question must be answered in the affirmative, as we may often hear a pleuritic friction sound a year or more after the primary attack. The vesicular breathing is less intense on the right side, because there is probably some thickening of the pleura, and this thickening interferes with the free expansion of the pulmonary tissue in the vicinity. Except these two minor points, the physical examination is entirely negative.

Our physical examination of the chest, therefore, excludes any active or progressive disease of the lungs. Still this man is sick, and unable to work. His pulse is weak and, on counting, is found to vary from 120 to 130. Let us proceed, then, to a further investigation of his case.

On percussion over the liver, we find it to be of normal size. Over the spleen we find a considerably increased area of dulness. When we press firmly down over the abnormal area of dulness, we feel a solid mass much



below the normal boundary of the spleen, and it gives the patient pain when we press firmly on it. This leads us to the conclusion that he has an enlarged and tender spleen.

The enlarged spleen starts us, then, in another direction, and we must go back and enter more fully into his history from another starting-point. He tells us that he lives on Long Island, near Flushing, and has lived there for fourteen or fifteen years. This district, I need not tell you, is one of the worst in the vicinity of New York for the development of malarial diseases. The patient says he had a severe and prolonged attack of chills and fever three years ago, but has had no regular malarial paroxysms since.

We must conclude, I think, that the enlargement of the spleen is due to malarial infection; and a condition of chronic malarial infection would be ample cause for his weakness, inability to work, and disturbed circulation. As you notice, his surface is pale, and his face has somewhat of a yellowish hue. I think, then, we can now easily sum up his case: We have here a man suffering from a chronic malarial infection, a very common condition, and one which gives rise to a series of symptoms which cannot be enumerated or tabulated, so numerous and so various are they, and appearing under so many different forms. We may have neuralgias of various forms, that may or may not be periodical in their occurrence. We may have various dyspeptic symptoms, that cannot be relieved by the ordinary dyspeptic remedies; various forms of headache, that are often treated as grave forms of cerebral disease. In some there is confusion of mind, a staggering gait, loss of power in some portion of the body—the mental faculties may become impaired; I have known the subjects of chronic malarial poisoning, in the middle of an argument or speech, to suddenly lose the thread of their discourse, and go on talking for half an hour perfectly unconscious of what they were saying. Other persons are affected with a sort of inertia, which renders it impossible for them to do work of any kind. They are not sick enough to go to bed, but too ill and habitually tired to perform anything requiring the least exertion. Some, again, get short of breath, have a rapid, weak, irregular pulse, pass sleepless nights, and so I might go on for an hour, and still be unable to detail to you all the symptoms that chronic malarial infection may give rise to.

In all cases of chronic malarial infection we have important changes in the constitution of the blood. It contains free pigment, becomes thin, deficient in red globules, and no longer retains its normal, nutritive power. In consequence of this the whole system is affected, and we get secondary changes in all the organs, always, however, attended by primary enlargement of the spleen. In order that a person should become thus infected, it is not necessary that he should have distinct intermittent paroxysms. It is quite sufficient that he resides for a long time in a malarial district, as he is constantly exposed to the poison. If this patient were to move away from where he is at present living, to a place free from the malarial emanations, he probably would have two or three severe malarial paroxysms, after which it is far more amenable to treatment than

now. Quinine or arsenic will not relieve him unless he can remove from the malarial district in which he now resides. Place him in a non-malarious locality, and then quinine will have its controlling power over the disease. Large doses of quinine will do more harm than good, so long as this patient remains in a malarious district. If the disease progresses without even temporary relief being obtained, splenic enlargement will increase, the liver will become involved, and finally general dropsy will terminate the case. The change of residence in this patient's case must be immediate.

This case, gentlemen, is very instructive, for it shows how we are sometimes compelled to arrive at a diagnosis by exclusion.

### ORIGINAL ARTICLES.

#### ON A MEANS OF RENDERING VAGINAL INJECTIONS SAFE AND EFFICIENT.

(Read before the Medical Society of the State of New York, June 29th, 1877.)

BY

FRANK P. FOSTER, M. D.,

Physician for Diseases of Women to the Out-Patient Department of the New York Hospital.

THE great benefit which the proper employment of vaginal injections is capable of affording in the treatment of many diseases of the pelvic contents in women, and the frequency with which they are resorted to, render it highly desirable that their administration should be so conducted as to deprive them of all liability to do harm.

I presume that almost every physician either has himself met with unpleasant, if not alarming, results from the use of vaginal injections, or is aware of instances recorded by others; hence I consider it unnecessary to prove the proposition that such injections, as usually employed, are not wholly free from danger. I shall, however, mention a case which was recently reported to the Dublin Obstetrical Society by Dr. T. More Madden,\* for not only does it well illustrate the subject, but some of the points brought out in the discussion of the case are such as I wish to comment upon particularly.

Dr. Madden estimates that at the present time vaginal injections are used in nine-tenths of the diseases peculiar to women. A healthy young woman, whom he had delivered with forceps five weeks before, and whose convalescence presented nothing remarkable, called on him, complaining of pain in the back, a profuse yellow leucorrhœal discharge, and a distressing bearing-down sensation. The vagina was congested, the os uteri painful, and the uterus slightly prolapsed and enlarged. An astringent vaginal injection was ordered. A few nights afterward intense uterine colic came on during the use of the injection. Two hours later she was found cold, almost pulseless, and apparently semi-moribund. After the use of stimulants, sinapisms over the heart, etc., the more urgent symptoms were abated, warmth was restored to the limbs, theulse became apparent at the wrist, and the severe uterine pain was for the time considerably relieved. The next morning she was still in a

\* *Obstetrical Journal of Great Britain and Ireland*, vol. 22, p. 56.



state of extreme prostration, and again suffering from frequent paroxysms of violent uterine pain, and almost continual retching, with great tenderness over the abdomen, and especially over the uterus, which was as large and hard as it should be immediately after delivery. Her pulse was 140, and so weak that it could hardly be counted; her respiration was sighing, her countenance pale and anxious, and the skin cold and clammy. Poultices and anodyne stupes were applied to the abdomen; hydrocyanic acid draughts were given to allay the retching, and her strength was supported by enemata of brandy and beef-tea, with small doses of liquor opii. The same evening the incessant sickness and uterine pain continued. As even bits of ice were immediately rejected, she was ordered to take nothing whatever by the mouth; a drop of hydrocyanic acid was added to each enema a few leeches were applied over the seat of pain, and morphia was injected under the skin.

On the eighth day after the injection had been ordered the pain had, in great measure, subsided, but there was yet considerable tenderness over the uterus, which continued perceptibly swollen. The pulse was 140, weak and compressible; tongue dry and furred: decubitus dorsal, and sunk down to the back of the bed; and she was still suffering much from the constant nausea and dry retching. The next day she was seen by Dr. McClintock, who confirmed Dr. Madden's view of the case. She was able to sit up for the first time on the twentieth day, and was soon valescent.

Dr. Madden remarks that the uterine colic and subsequent metropéritonitis followed so immediately on the use of the vaginal syringe as to leave no room for doubt of their having been caused by the fluid being injected through the patulous os into the uterus, and probably, also, by some of it passing through an enlarged or dilated Fallopian tube into the conperitoneal cavity.

In the discussion upon Dr. Madden's paper, Dr. Atthill expressed the opinion that the occurrence of uterine colic following the injection of fluid by the syringe was not very rare. He had seen three cases in his own practice. In one case it followed the injection of a few drops of glycerine into the cavity of the uterus; in another, a weak solution of borax had been injected into the vagina; and in another, only tepid water had been used. He advised that the central aperture of the nozzle be closed, to prevent the accidental entrance of fluid into the uterus. Dr. Kidd concurred in this advice, and in the opinion that uterine colic, following vaginal injection, was not an uncommon event. "Patients," said he, "will use vaginal injections for weeks without suffering any inconvenience, and then it sometimes happened that they got colic. As a rule, it came on almost while the injection was being used, but sometimes it would not come on for a considerable interval. \* \* \* So far as his experience went, these cases occurred principally when the os was patulous, and there was marked retroflexion of the uterus."

Dr. McClintock remarked: "They could not speak positively as to the cause of the alarming symptoms described by Dr. Madden. They never could know whether any of the fluid went into the cavity of the uterus or

not. All they could say was, that such was possible. \* \* \* Hitherto he had been in the habit of telling his patients that they might use the syringe freely, and that it could not do any possible harm; but now he saw such a direction would not be always a safe one."

My friend, Dr. P. F. Munde, in his "Report on the Progress of Gynecology during the year 1875," after quoting this case, concurs with Dr. Madden's condemnation of the indiscriminate use of the ordinary vaginal syringe, and with his advice that in its place a vaginal irrigator should be used, from which a steady, gentle stream descends. "Care should be taken," says Dr. Munde, "that the nozzle of the syringe should not possess a central aperture, and if one is already present, it should be plugged. Patients have repeatedly returned, telling me that the single vaginal injection with a Davidson's syringe, of a weak solution of tannin, had caused them such severe abdominal pain as to confine them to their beds for several days. The observation that these complaints were principally made by women with naturally wide external uterine orifices, or in whom bilateral division of the cervix had been performed a short time previously, or whose cervical canals I was dilating with Ellinger's or Peaslee's dilators, speedily led me to surmise the true cause of the sudden pain, and to recommend less force in the injection, or the use of a fountain syringe."

Now, all these comments upon Dr. Madden's case point to but one source of danger, namely, the entrance of the actual stream into the uterus; and they would lead us to infer that this is the only danger, and that it can be obviated by so simple a device as the use of a nozzle without a central aperture. This hint is coupled with the advice to make the stream less forcible. If the stream from the side of a nozzle is not liable to enter the uterus, why use less force? The advice to do so shows, I think, that no great confidence is felt that the central aperture is the sole source of danger. In point of fact, a stream from the side of a nozzle may enter the uterus, since the axis of the uterus usually forms more or less of an angle with that of the vagina. The absence of a central aperture is, therefore, not an absolute guarantee against danger, even if the direct entrance of the jet into the uterus were the only thing to be feared.

I believe, however, that an injection may enter the uterus by reason of spasm of the vagina, or of the muscles situated about it, in this wise: If an ordinary nozzle be used, it is apt to be grasped spasmodically by the vulvar ring; the outflow of the injection is thus impeded, or altogether prevented, the vagina is distended, and spasm in its deeper parts is induced, which may cause a portion of the fluid to enter the uterus; or this distension may prove injurious in other ways, for instance, by stretching and straining inflamed parts about the vagina, or the diseased walls of the canal itself, as suggested by Ebell.†

Moderate degrees of distension of the vagina by injections are very common, as any one may satisfy himself by observing how frequently a portion of the liquid remains imprisoned in the vagina after the withdrawal of the nozzle. I presume that, as a general thing, this does no harm; but

\* "American Journal of Obstetrics," vol. ix, p. 167.

† *Zeitschrift für Geburtshülfe und Frauenkrankheiten*, 1 Bd., p. 598.



what if, during the continuance of the spasmodic closure of the orifice, the deeper parts of the canal should become affected with spasm? The water must then be subjected to considerable pressure, and it is quite likely that some of it would be driven into the uterus. That such deep-seated spasm may take place, and that it may be very forcible, will be seen from the following case, related by Hildebrandt:\* "A young woman of an erotic nature, and in a state of high nervous excitability, who was undergoing treatment for uterine disease, allowed the marital approach. The husband gave the following account of what happened on a certain occasion, when his wife was feeling less indisposed than usual, but very much agitated: At about the moment that he considered the coitus, which was in other respects normal, as at an end, he suddenly felt himself, or rather his glans, held fast, bound and imprisoned deep in the vagina at a time when the whole member was occupying that canal. All attempts at release proved fruitless. Forcible attempts gave severe pain to either spouse, and at last, bathed in sweat, as the result of agitation, fear, and fruitless endeavors, they were obliged to resign themselves to patient waiting. How many minutes this lasted he could not say, but the duration of his imprisonment seemed to him without limit; then the impediment gave way of itself, and he was free." Hildebrandt attributes the occurrence to spasm of the levator ani. On examining the woman, some weeks afterward, he found no abnormality of the genital organs, except moderate anteflexion of an hypertrophied uterus.

About a year ago I published† a description of the "vaginal douche," here shown, an appliance which I had devised for the purpose, among others, of obviating what I conceived to be the sources of danger in vaginal injections; and I have now been thus particular to state my views upon the subject, because I have noticed that several gentlemen have been using the instrument in question, after having substituted the ordinary nozzle (but without a central aperture) for the one which I described. In so doing they have not impaired the efficiency or convenience of the instrument, but they have, as I think, sacrificed some of those features in it which were designed to render it incapable of doing harm. To illustrate my meaning, I may be allowed to describe the douche here, notwithstanding the fact that a description of it has already been published.

An elliptical cup of soft rubber, large enough to cover the vulva, is pierced at its apex by the delivery-pipe of a Davidson's syringe, as shown in the accompanying cut (fig. 1). To the extremity of this flexible delivery-pipe, inside the cup, the nozzle, which is a U-shaped tube of hard rubber, is attached by one of its arms. In this arm, near the bend, and looking toward the opposite (free) arm, is a single aperture through which the injection escapes, the stream striking against the free arm of the tube, which is closed at its extremity, so that by no possibility can the stream directly enter the uterus, nor can the vagina suffer undue distension, since the two arms of the U-shaped nozzle maintain constant patency of the vaginal outlet, and consequently insure the free egress of fluid, while at the same time they hold the vaginal walls apart

\* *Archiv für Gynäkologie*, iii, p. 221.

† *Medical Record*, vol. xi, p. 597.

sufficiently to insure the subjection of the whole mucous lining of the canal to contact with the injection. To accomplish this last purpose, the size of the nozzle, *i. e.*, its length, and the distance between its arms, should conform to the dimensions of the vagina in the particular patient who is to make use of it.

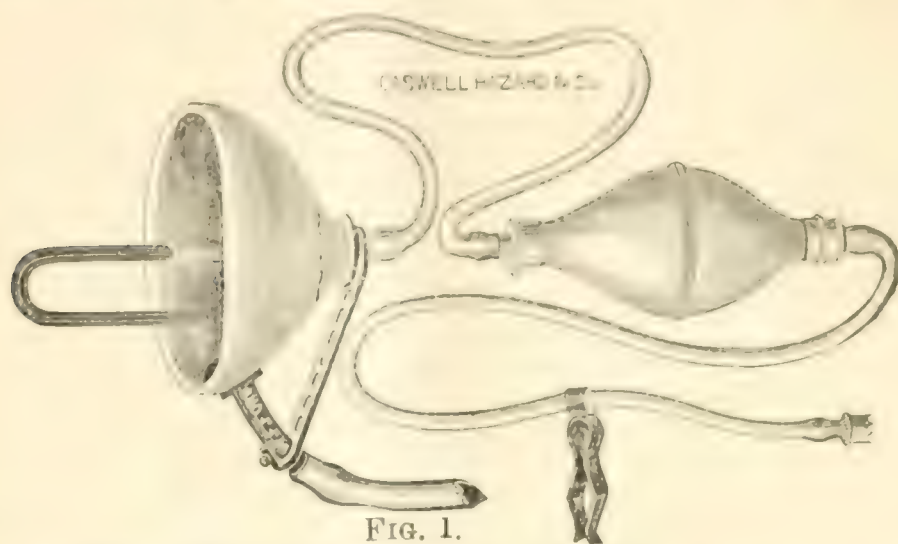


FIG. 1.

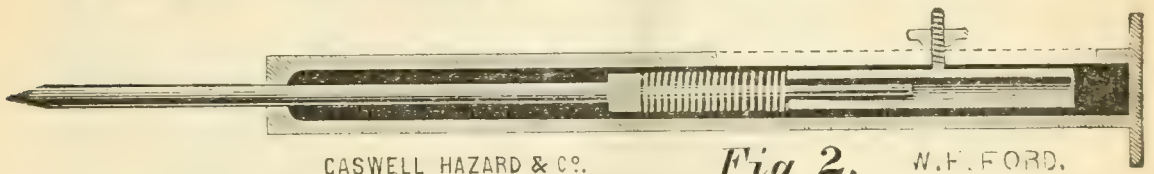
The patient lying on her back, with the hips somewhat raised by means of a pad or hard cushion, the vessel holding the injection is placed in a chair or on a table by the side of the bed. The suction-pipe of the syringe having been made fast to the vessel by means of the clip, a few syringe-fuls of the fluid are first passed through the instrument, in order to drive out the air contained in it. The nozzle, previously oiled, is then to be introduced into the vagina, when the cup will be found to cover the vulva. The lower part of the cup is to be held gently, but firmly and evenly, against the perineum, but *the upper edge of the cup should not be in contact with the patient's person*, for in that case, should the current become obstructed in the out-flow pipe (which is attached to the lower part of the cup), distension of the vagina might take place; whereas, if these directions be followed, the only effect of such obstruction would be that the injection would overflow at the upper part of the cup. The injection is effected by working the syringe in the ordinary way; but, should a syphon action be preferred, it is only necessary to raise the vessel containing the injection above the level of the vulva, when, after once starting the stream, it will be found to continue of itself, without the necessity of working the syringe. The injection may be kept up *ad libitum*, as the out-flow pipe conducts the fluid from the vagina into a vessel placed on the floor by the side of the bed for the purpose. Care should be taken that *every part* of the out-flow pipe shall be on a lower level than the lower portion of the rubber cup, and that it be not pressed upon anywhere, or bent at too sharp an angle, otherwise the fluid may flow over the top of the cup, and soil the bed.

The cup, it will be seen, is an important part of the arrangement,



since it enables a prolonged injection to be given to the patient in the recumbent posture (conditions which greatly conduce to the efficiency of vaginal injections), without the disagreeable necessity of using a bed-pan, or the services of a nurse. Important as is the cup, however, the essential feature of the instrument is the nozzle, as being the part which secures against danger. I am so thoroughly impressed with the truth of this statement that, in the case of patients who cannot afford to buy the instrument as a whole, I am in the habit of advising them to get the nozzle, and attach it to the Davidson syringe. On account of the flexible attachment of the nozzle to the cup, its insertion does not give pain, even immediately after confinement, or when the parts are lacerated or inflamed; and, for the same reason, it is perfectly efficient in cases of ruptured perinæum, even if the laceration extend into the rectum—but in that case the lower border of the cup must be held behind the anus.

Quite recently I have contrived an auxiliary appliance to maintain the contact of the cup with the person, thus doing away with the fatigue of keeping up pressure with the hand during a prolonged injection. This is here shown in section (fig. 2). It consists of two cylinders, one of



which plays within the other, after the manner of a piston and barrel, thus forming a rod which is capable of being lengthened or shortened, so as to be eight or eleven inches long, or of any intermediate length. This is effected by a false bottom, which can be fixed in various positions by means of a set-screw passing through a slit in the outer cylinder. Upon this false bottom rests a spiral spring, which tends to elongate the rod. It is used in this way: the lower limbs resting on a pillow placed under the hams, and the douche having been applied in the manner already specified, the pointed end of the rod is inserted into one of a series of holes in a metallic bar which is attached to the cup (see fig. 1), while the broad end rests against the lower part of the pillow. By means of the set-screw the length of the rod is now adjusted in accordance with the degree of pressure which may be required, and with the distance from the cup to the pillow. Of the holes in the metallic bar, it is best to make use of such a one (generally quite near the out-flow pipe) as will cause the pressure to be exerted chiefly upon the lower border of the cup. As a matter of course, the axis of the rod should not deviate laterally from that of the body.

## HOSPITAL RECORDS.

### COLORED HOSPITAL, NEW YORK.

Reported by Dr. FRANCIS HUBER, House Physician.

VENTRAL HERNIA. (SERVICE OF DR. SAMUEL WHITALL.)

SOPHIA F., 71.—Widow.—Delaware.—No relevant family history.

From infancy has had a slight ventral hernia, which remained of small size until she attained the age of 38. About this time she became pregnant, and at full term was delivered, after being in labor five days. The hernia has since gradually increased. The patient at different times has suffered from malarial fever; had the "ague-quake" at 16. She has repeatedly been dropsical: at these times she would be very drowsy; would even go to sleep standing up. With exception of slight oedema of lower extremities in spring, and occasional symptoms of the same intestinal obstruction, accompanied by great pain, she has been well since 1853. These attacks invariably yielded to opiates and cathartics. For some time she has been compelled to micturate very frequently.

So extremely sensitive was she to having her person exposed, that a thorough examination of the hernial tumor was impracticable. A large lobulated protrusion existed in the median line, a short distance above the umbilicus. Through the greatly attenuated abdominal walls, the vermicular movements of the intestines could be very distinctly perceived. With each contraction of the gut, minute linear indentations of the integument could be seen travelling across the surface of the mass in a very rhythmical manner. So plainly marked was the contour of the intestine in the most superficial portion, that no difficulty was experienced in recognizing it as the colon.



*March 21st*—With exception of attacks previously mentioned, the patient has, for the last seven years, been able to be about, and to attend to her various duties.

On the night of the 18th the patient was seized with great pain in the head, followed by chill and severe pain in lumbar regions. Has had a slight cough for a fortnight.



At present complains of severe headache and lumbar pains; tongue is heavily coated. Pulse 80 and irregular, respiration 28, temperature 102°.

Appetite is poor; bowels constipated; has been vomiting; slight oedema of legs; heart's action very irregular; no murmurs audible.

Lungs, as far as examined, healthy, though a careful exploration is impossible, in consequence of the excessive adipose development. Ordered, hydrarg. chlor. mite, grains 15; pulv. rhei, grains 10; also pot. iod. grains 5, every three hours.

*March 22d.*—Cathartic acted well; feces and urine passed in bed; patient very weak; no appetite; no delirium, convulsions or coma.

*March 23d.*—Died this day, 11.30 P. M. Conscious to the last.

Autopsy 13 hrs. P. M. Rigor mortis slight. Measurements:—Greatest circumference of abdomen above umbilicus, over the centre of tumor, 57½ inches; of hernial sac, at base, 34 inches.

Vertical measurement of tumor over centre, 18 inches; transverse measurement, 18½ inches.

Girth of abdomen above the tumor, 43 inches; around the hips, 53 inches.

Circumference of thorax, at fourth rib, 44½ inches. Length of body, 5 feet 5 inches.

Thickness of fat over abdominal wall, 3 inches; over the trochanters nearly 5 inches.

Weight of organs:—Right lung, 18 ounces; left lung, 12½ ounces; right kidney, 5½ ounces; left kidney, 6 ounces; brain, 45 ounces; heart, 16½ ounces; liver, 55 ounces; spleen, 3½ ounces; uterus, 4½ ounces.

Brain greatly congested; puncta vasculosa well marked; small excess of serum underneath, and slight opacities in arachnoid. Arteries at base contained scattered points of atheroma. Lungs—slight adhesions over left, none over right. Hypostatic congestion and considerable pigment. Heart enlarged, very flabby and muscular; structure pale. Excess of fat, especially over right ventricle, and along the course of the coronary arteries. Cavities somewhat dilated, and contained flabby dark clots, most abundant on right side. Endocardium and walls of vessels deeply stained by hematin; valves not abnormal.

Liver presented a beautiful specimen of bronze degeneration. The gall bladder contained a very small amount of tenacious, dark-brown bile, and a number of calculi of various sizes, from a pin's head to a chestnut. They were mottled, pale yellow and dark, and presented numerous facets. One calculus of small size was found in the cystic duct, which was considerably distended.

Spleen normal in size, flabby, and of a dark color.

Kidneys excessively flabby, and in an advanced stage of granular and fatty degeneration. Capsule not at all adherent. Renal veins, with their ramifications in the organ, were greatly engorged. On section the pyramids and pelvis were deeply congested, while the cortex was pale and fatty.

In the uterus several small interstitial fibroids were discovered. A soft, elongated polypus, projecting downward, and tapering to a point near the os, was attached to the fundus by quite a broad base. The organ itself was very soft in structure. A careful examination of the hernial tumor revealed the following condition: externally the mass was divided into three main protuberances; these, again, were more or less lobulated, corresponding to the intestinal pouches.

While the integument over the abdomen generally was of normal thickness, and the adipose tissue of excessive depth, the portion over the hernial protrusion was exceedingly thin. The umbilicus was found at the lower margin of the base of the sac, and was completely hidden from view by the overhanging mass. Upon section, the skin over the hernia was found to have no intervening structure between it and the gut, excepting a few slight adhesions. The contents were arranged in a very complex and peculiar manner. Occupying the uppermost pouch was found a portion of the transverse colon (near the splenic knuckle), greatly elongated and distended; to this the great omentum was attached. This mass was separated from another pouch by a partition of false membrane, having a falciform border. In this pouch, situated below and to right of former, were contained the caput coli, ascending, and part of transverse colon. The third pouch, forming the lower portion of the mass, to the left held the ileum and a portion of the jejunum. It was separated from the other pouches by a slight but very firm fibrous constriction.

In addition to these pouches numerous smaller ones were discovered, separated from one another by similar fibrous partitions.

The main neck of these pouches was surrounded by a continuous, nearly circular fibrous band, of almost cartilaginous hardness.

The mesentery and meso-colon were greatly elongated, and contained an excess of fat. The appendices epiploicæ were also very numerous and large. The pyloric orifice of the stomach and the duodenum were drawn downward, considerably out of position.

The contents of the pouches containing the colon were firmly bound to the parietes by adhesions. The pouches containing the small intestines appeared to be free from them.

**MICROSCOPY.**—The polypoid growth consisted of very delicate fibres, small oval nuclei, and considerable fat.

The liver cells were exceedingly small and few in number. Some contained minute granules of fat, others brown pigmentary matter, a great excess of free oil, a few fat crystals, showing a tendency to form acicular-shaped bodies.

No normal kidney structure discoverable; a great abundance of granular and fatty matter was found.

The tufts were shrunken and capsule thickened; tubes were denuded of epithelium, and contained granular and fatty matter.

Heart was not only the seat of adipose degeneration, but the fibres contained fat globules.

Over the tumor the dermal tissue was replaced by fibrous structures.



## PERISCOPE.

### COLLABORATORS.

*Dermatology*.—HENRY G. PIFFARD, M.D., Professor of Dermatology in the University of New York.  
*Diseases of Women and Children*.—FRANK P. FOSTER, M.D., Gynæcologist to the New York Hospital Out-door Department.  
*General Surgery*.—EDWARD J. BIRMINGHAM, M.D., Surgeon to Bellevue Hospital Out-door Department.  
*Genito-Urinary Diseases and Syphilis*.—ROBERT W. TAYLOR, M.D., Professor of Dermatology in the University of Vermont.  
*Orthopedic Surgery*.—NEWTON M. SHAFFER, M.D., Surgeon to the New York Orthopedic Dispensary and Hospital.  
*Practical Medicine*.—E. DARWIN HUDSON, JR., M.D., Professor of Practice of Medicine, Woman's Medical College, New York.

## ALOPECIA AREATA.

BY

LAILLER. (*Le Progres Medical*, Nos. 12 and 13, 1877.)

THE author is unwilling to express himself confidently as to the nature of this affection, and says that neither the parasitic nor the neurotic theory of the disease is supported by sufficient evidence to warrant the definite acceptance of either. In the way of treatment he recommends that the scalp (if affected) be shaved twice a week, the beard daily, and that the following be well rubbed in night and morning.

Grammes.

R	Balsam of Fioraventi,		
	Tincture of Camphor,		
	Tincture of Pyrethrum,	aa	100
	Ammonia Water,		6
	or		
R	Balsam of Fioraventi,		
	Tincture of Camphor,	aa	100.
	Tincture of Cantharides,		25 to 50.

Balsam of Fioraventi is a mixture of several stimulating and irritant ingredients, and its formula will be found in the French Pharmacopæia H. G. P.

## MEDICINAL RASHES.

BY

KOEBNER, V. HEUSINGER AND APOLANT. (*Berl. Klin. Wochensh.*, 1877, Nos. 22, 23, 25.

WE here find observations concerning the occurrence of various eruptions induced by the use of certain medicines. Kœbner has encountered simple hyperæmiæ and inflammations, usually under the form of urticaria, exudative erythema, phlyctenæ, acute furuncles, etc. Beside the well-known mercurial, iodic, and bromic eruptions, exanthems have been noticed to follow the administration of quinine, morphine, strychnine, digitalis and chloral hydrate, and other drugs. As these eruptions may closely simulate idiopathic affections of the skin, great care should be exercised in diagnosis.

H. G. P.

## MOLLUSCUM CONTAGIOSUM.

BY

KAPOSI. *Viertele. Schrift f. Derm. u. Syph.* 1877. 3 IL.

IN an extended article the writer comes to the conclusion that the disease is not contagious, and that its anatomical seat is in the sebaceous glands. He thinks, therefore, that its name should be changed to M. Sebaceum. Vidal (*Le Progrès Medical*, 1877) likewise expresses the opinion that the disease is situated in the sebaceous glands. These conclusions are at variance with those of Retzius, Boeck, Lukomsky and Piffard, who, from actual microscopical examination of thin sections of the tumors, unhesitatingly locate the affection in the rete malpighii, and not in the glands.

H. G. P.

## MUSCULAR ATROPHY IN AFFECTIONS OF THE JOINTS

*(The Lancet, September 22d, 1877.)*

IN a memoir just published (H. B. Baillière), M. Valtat, of Paris, discusses in an exhaustive manner the subject of muscular wasting, in connection with articular disease. He points out that in all joint affections, even in acute arthritis, which gets well in a few days, the muscles in the neighborhood of the joint, and also those that are at some distance from it, become weak and rapidly atrophy. As a rule, the extensors are the first to fail, *e. g.*, the triceps cruris in disease of the knee, or the deltoid in shoulder affections; and while other muscles of the limb may be wasted, the atrophy is most marked in those which act directly upon the joint. The wasting commences very soon after the first symptoms of joint affection are shown, so that by the eighth to the twelfth day after the onset of the arthritis, there will be a marked diminution in the size of the limb. This wasting cannot arise, the author thinks, from simple inaction, or forced disuse, because of its early appearance, and the frequency with which it persists after the joint symptoms have subsided. The experimental investigations of the author, made in M. Vulpian's laboratory, lead to the same conclusion. He excited artificial inflammation in the joints of animals (Guinea-pigs and dogs) by means of the injection of irritants, etc., and marked effects upon the muscles were observed within a few days of the operation, and he found all the evidences of atrophy in the affected muscles, which were diminished markedly in volume and weight. The atrophy is not due to fatty degeneration, but simply to wasting of the muscular tissue, leading to paralysis, which can be cured by means of electricity. The author's conclusion may be summed up as follows: 1st. That the majority of joint diseases markedly influence the nutrition of the muscular system. 2d. That, in the majority of the various kinds



of arthritis, from the very onset of the disease, there supervenes considerable atrophy, and more or less marked paralysis of certain muscles, particularly those acting on the affected joint. 3d. This atrophy cannot be attributed to functional inactivity, nor to an inflammation of the muscles, nerves or spinal cord, but is produced most likely in a reflex manner. 4th. It usually increases as long as the articular disease lasts, and although occasionally it may be transitory, in an immense majority of cases it persists after the cure of the arthritis, and then forms the chief hindrance to the restoration of the movement in the limb. 5th. Its duration is very long, generally, and it only has a slight tendency to spontaneous cure. 6th. These atrophic lesions are readily and rapidly cured by the use of feeble continuous currents, and, better still, by the combined use of galvanism and faradism.

[In the ARCHIVES OF CLINICAL SURGERY, for June, 1877, in the article "On Reflex Muscular Contraction and Atrophy in Joint Disease," etc., I call attention to, and demonstrate from a clinical standpoint, the facts which M. Valtat has experimentally proven. In the article referred to, the following sentence appears: "I may state, as a result of my clinical observations on this point, that the force and persistency of the contraction, the muscles affected by it, the degree of muscular atrophy, and the rapidity with which it occurs, and the extent of the impaired electro-muscular contraction,—all have their value as indicating the actual pathological condition of the diseased articulation, and are of great service in making both our diagnosis and prognosis." In all important particulars, though viewed from a different standpoint, M. Valtat's conclusions agree with those stated in my paper, which is, so far as I know (aside from Sir James Paget's remarks quoted in the article), the first contribution to this important and interesting subject.]

N. M. S.

## A NEW ADHESIVE PLASTER, ESPECIALLY ADAPTED TO THE REQUIREMENTS OF MODERN SURGERY.

BY

HENRY A. MARTIN, M. D. (*Boston Med. and Sur. Jour.*, Oct. 11th, 1877.)

THE compound of which this plaster is made is of the very best Para rubber, Burgundy pitch, and balsam of tolu. The latter ingredient, besides contributing an agreeable fragrance, has an important effect in rendering the plaster unirritating to the skin, and improving it in other respects. These are the essential ingredients; they are combined and spread on a very strongly woven cloth (which has been thoroughly "shrunk," and deprived of every trace of "dressing" by treatment with the eminently antiseptic liq. zinci chloridi, of Bennett), by means of extremely expensive and exquisitely adjusted machinery, contrived for different and very important manufacturing purposes, but perfectly adapted to this new production. I need not give here a detail of cases in which my correspond-

ents and myself have used the plaster; enough that it has been found to be all that can be desired in all cases, and of very especial value for purposes of extension in fractures, etc., in wounds of the scalp, and bearded and hairy parts of the body, and in those cases in which muscular action and gravitation tend to a separation of the sides of wounds; for strapping for ulcers, the breast and testicle; for attaching and fixing splints, and in treating fractured patella by Sanborn's method. It has been tested in an atmosphere below zero, and found perfectly and readily adhesive, while in one at 100° it has been not more so. Specimens made a year ago evince no signs of change or deterioration, and those of a similar product, made more than ten years since, retain adhesive and other qualities.

At some future time I may publish the commendations of very distinguished practitioners which I have received, but as I have not asked for formal permission to that end, I do not feel at liberty to do so now.

I have transferred the entire commercial charge of this invention and manufacture to my old and valued friends, Messrs. T. Metcalf & Co., of Boston, and I have requested them to present a specimen of the plaster to any physician who may apply, either personally or by letter, that a full examination and testing may be made inexpensively by all who desire. If any of my readers should avail themselves of this opportunity, and use the plaster, I should be much obliged by their giving me their opinion of it, if favorable, and still more if, for good reason, it is unfavorable. I have conscientiously endeavored to test it fully before troubling the profession with this announcement, but defects may be revealed by time, or to other observers; and I am extremely anxious to be made aware, and to make others aware, of such possible defects, as soon as they may be discovered. E. J. B.

## A CASE OF NEURALGIA OF THE SECOND METATARSO PHALANGEAL ARTICULATION CURED BY RESECTION OF THE JOINT.

BY

ERSKINE MASON, M. D. (*Am. Jour. Med. Sci.*, Oct., 1877.)

FRANK P., aged 21, native of South America, fireman by occupation, was admitted into Roosevelt Hospital, January 17, 1877, and gave the following history:—

Sixteen months ago he fell from his engine, and received a compound fracture of the right femur, a short distance above the knee, from which he made a good recovery, though with an ankylosed knee. Six months ago he had the great right toe removed in Chicago for what he called neuralgia, though he states that the surgeon who removed it told him that the joint was diseased. It was removed at the metatarso-phalangeal articulation. Four months ago he began to have pain similar to that which had previously existed in the great toe, in the metatarso-phalangeal articulation of the second toe. This



pain has increased so, that for the past two months it has been so severe, when walking or standing, that he had to give up work, and now enters the hospital, either to have the toe removed, or obtain relief in some other way. The general condition of the patient is good. There is no swelling or redness about the toe, but the slightest pressure is sufficient to produce pain, and when walking he bears all his weight upon the heel. All the toes are constantly in a state of great extension, looking almost as if dislocated forward.

A variety of treatment failing to afford relief, I determined to resort to resection of the joint, bearing in mind Dr. Thomas G. Morton's interesting and instructive paper in the *American Journal of the Medical Sciences*, for January, 1876. I accordingly removed this joint by a single straight incision on the dorsum of the toe, on the 6th of February, 1877. So great was the degree of extension of the toe that a partial luxation may be said to have taken place. Nothing abnormal was detected in the articulating surface of the bones removed. From the time of the operation all pain ceased, and he has since had no return of his troubles. The wound, however, was some time in healing, a small abscess occurring upon the under surface of the toe, which remained open for some time. At the present time (August 20) the foot remains well, and for the past few weeks he had been acting as night-watchman in the hospital, is very well and hearty, and free from all pain.

It will be noticed that in Dr. Morton's cases it was the fourth metatarso-phalangeal articulation that was affected. In this instance it was the second. In all his cases I believe an injury was the exciting cause. In my case I have no doubt it was the same, the joint being probably injured at the same time his femur was fractured.—E. J. B.

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Philadelphia, Pa. }

MR. EDITOR :—

I offer the enclosed, as it does not advertise anybody,—although there are some four or five persons making, or rather isolating, wheat phosphates,—there is no commercial object. I am neither selling them nor making them, except for my own private practice.

Yours truly,

C. G. POLK.

## WHEAT PHOSPHATES.

BY

C. G. POLK, M. D., PH.D.,

Late Professor of Chemistry in the Pennsylvania College of Pharmacy.

THE tendency of the medical age is to seek organic medicine, and investigators drift along with the tide, imploring nature to reveal her secrets. Now and then a light breaks through the mysteries which hide so much from the scrutiny of man, and a new truth is added to the common stock of human knowledge. Pepsine is an acknowledged remedy; pancreatic juice has many advocates. Isolated brain phosphorous compounds, under the name of the Glycerite of Kepheline, are exciting much interest and, it seems, winning a permanent place in the list of remedial agents.

Ingluvin, from the gizzard of fowl, is now undergoing examination, and no doubt is a good thing, if properly isolated. Some, isolated by myself, has proved excellent in an obstinate case of dyspepsia.

Wheat phosphates, I may say, are the latest novelty in organic therapeutics. These may be obtained by macerating the inner portion of the shell of wheat with hot alcohol, and precipitating at the freezing point, 32° F. Although water will extract the phosphates, its high point of congelation unfits it for the purpose. While the fluidity of alcohol is undisturbed far below zero, it loses its hold on the phosphates when the temperature falls below 32°, and consequently it is the most available solvent. Bisulphide of carbon is too offensive in its odor for ordinary use, but is a better solvent, and will extract the phosphates at a temperature of 60°, but it will not give them up so readily as does alcohol. Trichloride of carbon is the *par excellence* solvent, but the cost is a barrier against its employment, except in manufacturing on a large scale. I believe the credit of introducing phosphates obtained from wheat belongs to Professor Horsford, and constitutes the preparation known as Horsford's Acid Phosphates.

For several years I have been using wheat phosphates, manufactured by myself, and what I am to say is my personal experience in more than five hundred cases. As a nutrient tonic it is very efficient, and seems especially adapted to cases of debility unattended with organic disease. Perhaps I have witnessed more salutary results from its use during lactation than under any other circumstances. The drain made by the nursing upon the vital resources of the mother is often very considerable, and her health very much depreciates; she loses her strength, grows thin, and often lapses into tubercular phthisis. The use of wheat phosphates obviates this; they rapidly supply the loss thus induced, and restore health and vigor. Very often the child does not thrive, it emaciates, it teethes with difficulty, and is liable to fall victim to convulsions or infantile diarrhoea. The phosphates freely taken by the mother will obviate this. I believe, taken by the mother or by the infant, that it will remedy the deficiency of the phosphites and phosphates, which seem



to underlie so much of infantile pathology, as is expressed in deficient tissue and osseous development, scrofula, rickets, and diseases depending upon difficult dentition.

2349 Catharine Street, Philadelphia, Pa.

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## ABOUT BOOKS.

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*The Ear: Its Anatomy, Physiology and Diseases.* By Charles H. Burnett, A. M., M. D. Philadelphia: Henry C. Lea, 1877, pp. 615.

As the title of the work indicates, this volume treats of the anatomy and physiology of the ear, as well as of its diseases, and the author has taken special pains to make this difficult and complicated matter thoroughly clear and intelligible. Part I., consisting of 162 pages, is entirely devoted to this branch of the subject. The remainder of the work treats of the diseases, and is divided into several sections: 1st. Examination of patients, in which an admirable description is given of the general method of examination, and the instruments to be used. 2d. Diseases of the auricle. 3d. External auditory canal. 4th. Membrana tympani. 5th. Middle ear. 6th. Internal ear; and, finally, a seventh section devoted to a consideration of the methods of relief and education of mutes and partially deaf children.

The book is designed especially for the use of students and general practitioners, and places at their disposal much valuable material. The ear, and its diseases, is a branch of medicine too much neglected by the class of men for whose especial use the book was written; and we think that this is partially due to the fact that the subject is either too superficially treated of in text-books on general surgery, or, on the other hand, too elaborately discussed in works that none but the specialist can read and understand. Such a book as the present one, we think, has been needed, and we may congratulate the author on his success in filling the gap. Both student and practitioner can study the work with a great deal of benefit.

It is profusely and beautifully illustrated, and appears in the handsome manner in which the publishers always send their books from the press.

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*The Physician's Visiting List for 1878.* Philadelphia: Lindsay & Blakiston, 1877.

WE have just received this indispensable little volume, gotten up in its usual attractive and convenient form. No better recommendation could be offered than to say that this is its twenty-seventh year of re-publication, and that those who once begin using it usually continue to do so throughout their professional career. We simply chronicle its appearance, in order that those desiring it may have their orders filled in time.

*Transactions of the College of Physicians of Philadelphia, Vol III., Philadelphia, 1877.*

"The College of Physicians this year presents the profession with a by no means less interesting volume of "*Transactions*" than it has produced in previous years. It embraces thirteen valuable original papers from such men as Meigs, Mears, Reese, Pepper, Hutchinson, Da Costa and Longstreth. Dr. Mears contributes three papers, two of which we have already given to our readers in full (*vide* ARCHIVES OF CLINICAL SURGERY, vol. i, pp. 250 and 323.) The remaining article by Dr. Mears, "On the Treatment of Old Dislocations of the Shoulder by Subcutaneous Section of the Humerus, and the Formation of a False Joint," may be found discussed by Dr. Shaffer, on page 147 of vol. ii of the ARCHIVES. It is one which should receive the attention of every surgeon. The other papers in the volume seem to us no less interesting than those already referred to.

The College is doing a good work in publishing such creditable yearly volumes, and should be encouraged by the profession. Copies are for sale by Messrs. Lindsay & Blakiston.



# THE HOSPITAL GAZETTE

AND

## ARCHIVES OF CLINICAL SURGERY,

A Semi-Monthly Journal of Medicine and Surgery,

EDITED BY

Edward J. Bermingham, M. D., and Frederick A. Lyons, M. D.

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### EDITORIAL.

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#### IS IT ELEVATING OR DEGRADING THE PROFESSION?

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FOR some time past several of the journals have been striving to "elevate the standard of the profession," after a manner of their own. This method is the recognition of a class of practitioners which the code of ethics and our own personal honor forbid us to have any communication with. In our last issue we exposed one of the "beings" belong-

ing to this class. We now intend to follow the same course with the journals that have affiliated with this individual, and which are in reality accomplishing one of two things: either the degradation of the regular profession, or the elevation of a school of practitioners and a so-called medical college, that have, for the past quarter of a century, disgraced America and American institutions. We think the profession should know the journals which have betrayed the sacred trust imposed in them when they received its support, and evidently for the purpose of securing the advertisement or obtaining the subscription of the Professor of Surgery in the Eclectic Medical College of Pennsylvania.

In the *Nashville Journal of Medicine and Surgery*, for September, 1877, may be found an article on "Vitalized Phosphorus Compounds;" and in the *Virginia Medical Monthly*, for October, one on "Treatment of Tubercular Phthisis." Both of these papers are from the pen of Charles G. Polk, M. D., the *distinguished* individual whom we had the pleasure of introducing to our readers in our last issue. The *New Orleans Medical and Surgical Journal* has succeeded in securing the services of the "professor" for a series of papers on "Tuberculosis," a portion of which has already been published in the September and October numbers of that periodical, while the remainder is promised for a future issue. The editors evidently think that such elaborate and learned *original* articles should be dealt out to their readers with the greatest care, so that they may thoroughly digest and assimilate each portion: or are they feeling their way with their *protégé*, so as not to nauseate their readers by administering the whole dose at one time?

The last "original communication" from this personage, and one in which he has the impertinence to appeal to the decision of "the regular medical profession," graces the pages of the *Philadelphia Medical Times* for September 29th, 1877.

We most heartily congratulate the editors of the above-mentioned *high toned* periodicals upon the success attending their efforts to obtain such a *distinguished* and *able* writer for their respective journals. At the same time we think that they are in duty bound to account to the profession for their action, and if they have erred through ignorance, to apologize for the glaring insult they have been guilty of in forcing the profession to countenance such a disgraceful institution as we exposed in our last issue. It is just possible, though by no means probable, that the Nashville, New Orleans, and Virginia journals may have been imposed upon by the author of the *valuable* articles embellishing the numbers mentioned, but such could not possibly have been the case with the editor of the *Philadelphia Medical Times*. Dr. Horatio C. Wood has been prominently identified with the medical interests of Philadelphia ever since he entered the profession, and probably no one person is better acquainted with the standing of C. G. Polk and the institution which he represents, than is Dr. Wood; yet, in the face of this, he not only publishes an original article from his pen, but in the succeeding issue of his journal he furnishes an abstract of Polk's paper from the Nashville journal. This is the man who attempts (*Philadelphia Medical Times*,



October 27th 1877, p. 47) "to teach a lesson in regard to the responsibilities of journalists." We think he needs, sadly indeed, to learn the lesson himself.

We ask, nay, in the name of the profession, we *demand*, an explanation of the action of the above-mentioned journals.

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### THE "REVOLUTIONIST" AGAIN.

SOME time since we had occasion to call the attention of our readers to the shortcomings of a distinguished professor of surgery in this city, who has evidently forgotten that we are still alive, for we find him again trying to induce the profession to accept him as a veritable saint. As his peculiar style of composition is apt to deceive, unless elucidated by the aid of our pen, and as we are quite certain that the gentleman in question would not for the world countenance deception of any kind, we shall shortly take great pleasure in helping him to enlighten the profession on some of his "peculiar views." We cannot say more at present, as we must now turn our attention to some quotations from Smith, Elder & Co., London.

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### THE NEW MEDICAL COLLEGE.

FOR some time past there has been a report current to the effect that the trustees of Columbia College contemplated severing their connection with the College of Physicians and Surgeons, which is but a nominal one. The object of such was reported to be the establishing of a new medical department, to be organized on the plan of the continental schools. A surplus in the income of the college of \$150,000 annually was to be applied for the running expenses of the medical department, which was to be located in a building to be erected for the purpose, with a hospital attached. The course was to be prolonged to four years, with a preliminary examination, and one at the end of every year. This report has occasioned some alarm amongst some members of the faculties of the colleges at present in operation in this city, who reasoned that the trustees of Columbia would select the best men from each faculty, and the schools would, therefore, be compelled to discontinue.

We are authorized to say that the trustees of Columbia College, neither singly nor as a body, have ever contemplated any such action. The large surplus in the income of the institution they feel disposed to spend in erecting new and suitable buildings to carry on their present work in, but there is not a single member of the board who has ever entertained the idea of establishing a new medical department. They are desirous that the connection with the College of Physicians and Surgeons should be more than a mere nominal one, and that the course of instruction in that institution should be improved, so as to give a more thorough medical training. It is very doubtful, however, that steps to bring this about will be taken for some time to come.

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WE had hoped to continue Dr. Thomson's lectures in this number, but a severe retinalgia has prevented the doctor from revising the manuscript. They will be continued, however, as soon as he recovers.

## LECTURES.

## CLINICAL LECTURE ON SYPHILITIC MENINGITIS.

BY

EDWARD G. JANESWAY, M. D.,

Professor of Pathological Anatomy and Histology, Diseases of the Nervous System, and Clinical Medicine in Bellevue Hospital Medical College, New York.

GENTLEMEN:—I bring before you to-day a case which, perhaps, some of you may remember having seen last winter; I do so to show you how perfect was the cure. Just about a year ago he was taken sick, but previous to that time he had a disease, the traces of which still remaining, as you see by looking at the cicatrix on his forehead, tell plainly enough its nature. Those are the marks left by syphilis. He denies ever having had a chancre, but admits that he had a running from the penis. We have, however, a clear history of syphilis in other respects, so, if he had only a discharge, it was due to a chancre in the urethra. You know that chancre sometimes occurs in this situation, and it may run its course without the knowledge of the patient. Not long ago I saw a case of a gentleman who had what he and his physician thought to be a simple gonorrhœa, which soon got well, but about six months afterward it was followed by a specific ulceration, whose true character could not be doubted.

Sometimes the syphilitic eruptions are, however, somewhat difficult of diagnosis. Only last week I was called to see the case of a man who was reported to have small-pox. He had quite an extensive eruption on the arms, legs and body, but none on the face. It was chiefly of a red, papular variety, but there were also a number of vesicles, and some pustules. The color was a dark, dusky red, and around some of them there were little elevations of dry epidermal scales. I looked carefully for umbilications, and in some places I found them, where a hair follicle was situated in the centre of the spot. I suspected that it might be a syphilitic eruption, and examined the groins and penis. I found the inguinal glands enlarged, and on the margin of the prepuce was an indurated cicatrix which had contracted and caused phimosis. There had been considerable fever, but the eruption had persisted over two weeks. Here then we had the diagnostic points: the indurated cicatrix and the enlarged glands, and the duration of the eruption, for a small-pox eruption never lasts that length of time. In such cases we must be very careful of making the diagnosis of small-pox. You may, perhaps, think such caution unnecessary, but I have seen six or eight cases in which an eruption of syphilis has been mistaken for small-pox.

But to return from our digression to the case in hand. In October last, that is a year ago, this man had paresis of the right leg and arm, with a certain amount of paralysis of the face. There was some little numbness in the hand, and the loss of power was about one-half. On a number of occasions he had epileptic seizures, with severe convulsive



movements and spasms on the right side. He suffered from loss of memory and impaired vision. He was placed under treatment by iodide of potassium and bichloride of mercury, and the actual cautery was applied to the back of the neck. After a short course of treatment he was entirely relieved, and has felt well ever since. He has not had a convulsion since the 2d of last December. He left the hospital once, too early, and the result was that the convulsions and other bad phenomena returned. Now the question is, What was the trouble in this case? The man in all probability had a gummatous meningitis of the dura mater at the base of the brain on the left side. This was productive of convulsions and paralysis, by causing irritation of the anterior portion of the brain. The patient is still taking anti-syphilitic treatment.

The next patient is Mrs. G. R., 50 years old, and a widow. Her husband died of consumption, contracted during the war. He was healthy up to the time he left home, but after he returned suffered considerably from various kinds of skin diseases and ulcerations. Her father, mother, and rest of family, were healthy. Six years ago she had ulcerations on the right leg and arm, but none on the opposite side. Usually in this disease analogous points on both sides are affected, but in this instance it was only on one side. At this time she used to suffer a great deal from pains in the bones, worse at night. You see a circular cicatrix on the knee, and a brown discoloration at the border. This shows that there is some pigment in the skin, left behind as a result of extravasation of blood.

She comes to us now complaining chiefly of very severe pains in the head, with constant sense of noises in the ear, and she says her hearing and vision are impaired. We must first examine for external periostitis, for I have very often found, on autopsy of these cases, that where there was meningitis, the periosteum outside was likewise the seat of inflammation. If this be so we shall find a soft and succulent feeling on pressure, which will give rise to pain. On examination we do not find these signs, and consequently must conclude that whatever process is going on, is limited to the inside of the cranium. I see no evidence of trouble in the bones.

Examining the limbs, we do not find any marked paresis. The right hand squeezes the dynamometer to eighty on the outside scale, while the left turns the index to sixty. On testing by the æsthesiometer, we do not discover any loss of sensation. The patient walks perfectly well, and has no trouble with the lower extremities. She tells us that the pain in the head is not localized anywhere in particular, but the whole head is affected, and bothers her a great deal more at night than in the day-time. On looking into the eyes, we see unmistakable evidences of an old iritis. The pupils are small and irregular in their inner periphery, and a whitish opaque streak is seen to stretch across the centre. This is due to the effusion of lymph, which has become organized. This disease occurred at the same time that the leg was ulcerated. The sight is less acute in the right than in the left eye.

Hearing is about normal. The facial muscles work perfectly, as seen when she laughs or frowns. Sensation on the face is fair, and equal on the two sides. The sense of smell is good, and the sense of taste likewise.

She complains that the pain in the head is sometimes of a throbbing character, and this might give a suspicion of aneurism; but against such a theory we have the fact that she suffered from just such pain a month ago, but got entirely rid of it. We will be obliged, then, to consider this case as a gummy meningitis.

There is another point we must think of in these cases. We might get such symptoms from some other conditions than a gummous inflammation of the dura mater or pia mater. We frequently have a degenerative process going on in the inner coats of the arteries; this degeneration leads to thrombosis, and finally a circumscribed softening of the brain tissue is induced. In many cases of what is called general paralysis of the insane, syphilis is at the bottom of the whole trouble. We always have one of two conditions present: 1st, inflammation of the meninges, of a gummous type; or 2d, disease of the arteries.

I am here reminded of a case of this description, which was extraordinary on account of the youth of the subject. This condition usually occurs only in advanced age, but in this instance the young man was only 23 years old. He had general paralysis, but not in the ordinary sense. He had a double hemiplegia, the paralysis first affecting one side, and then the other—the whole body being affected. It was extremely difficult to make an accurate diagnosis, but we finally came to the conclusion that the symptoms were produced by a gummy tumor, situated near the fissure of Sylvius. On autopsy, however, we found lesions of the cerebral arteries, degeneration, thrombosis and softening.

Where the lesion is so deep-seated we cannot expect to do much good, but when it is in the meninges, we may have great hopes of making the patient much better, if not of curing him entirely.

The treatment for this woman will be iodide of potassium and bichloride of mercury, and if she does not get well soon, we shall apply the actual cautery to the back of the neck, as it usually does a great deal of good in these cases. The syphilitic treatment should be kept up for some time. My friend and colleague, Professor Keyes, believes that all cases of syphilis may be cured, and subsequent lesions prevented by proper continued treatment at first. This may be true, but we meet with any number of patients who are troubled with various tertiary manifestations of syphilis, who have been under regular treatment for a long period. There is no disease that I know of that produces so many and such vital lesions in all parts of the body as syphilis.



## CLINICAL LECTURE.

Delivered in the Amphitheatre of Bellevue Hospital, New York.

BY

ABRAHAM JACOBI, M. D.,

Clinical Professor of Diseases of Children in the College of Physicians and Surgeons, New York.

1. MAMMITIS, APHTHÆ, AND DIARRHŒA. 2. CATARRHAL  
PNEUMONIA.

GENTLEMEN:—The child that I now show you is three weeks old, and there are a number of conditions present that remind you of the newborn state. On examining the chest of the little patient, you discover that the two mammae are somewhat red and swollen. You sometimes find this condition occurring when the infant is but a few days old. On squeezing the breasts, a fluid exudes, and the common rule in treating this affection is to press the liquid out, but this is a great mistake, as mastitis is made worse by handling the mammae. The liquid that exudes is milk, which compares very closely with the milk of a nursing woman. Simon, the French chemist, after a careful analysis, showed that this kind of milk did not differ much from mother's milk, with the exception that the latter contains a larger proportion of caseine.

This affection of the breasts in young infants does very well when left alone. The result of squeezing is usually inflammation and suppuration, which ends in the partial destruction of tissue. The tissue destroyed is never repaired, and the breast does not attain its proper growth. I know several adult women who have a breast only on one side, and the absence of the other is due to the loss of tissue during infancy. A simple application of glycerine or oil is all that is required in most of these cases. Something else, however, may occasionally be resorted to with advantage. The external application of iodide of potassium is frequently useful. The salt may be dissolved in water or glycerine, and applied to the part. In this form it is taken into the skin in a much better way than when ointments are employed. Ointments made with fat in most cases are of absolutely no use, as they act only on the surface or cutaneous nerves. The solution in glycerine penetrates the skin much better and more rapidly, and this may be proved by the fact that, when an ointment is used, the iodide is not found in the urine for several days, but after using glycerine, the salt may be detected in twenty-four hours. A better mode still of getting the medicine into the system is by using oleic acid. This substance penetrates the skin with great facility and rapidity, and whatever is soluble in it may be administered in this way.

Quinine dissolves in oleic acid, and a few hours after its exhibition may be found in the urine. It may be given by this means, if there be any difficulty in introducing it by the stomach or rectum. There is only one drawback in the use of this agent. Oleic acid is itself an irritant, and may make the skin red and inflamed. A few pustules may form, and then not so much of the medicine will be absorbed. Carbolic acid may be

mixed with oleic acid, and erysipelas may be treated by this method. Oleic acid penetrates the skin readily, and whatever it contains goes along with it. With children, use the proportion of about one to sixty. In this case before us we shall use one part of iodide of potassium in four of glycerine, spread on lint, and laid on the mammæ.

On looking more closely at this baby, you perceive a slight erythematous eruption. It is wrapped up in a hard flannel, and this in itself is often enough the cause of an eruption of this nature in new-born children. You see the same thing happen when new diapers are used, that have not yet been washed. On examining the umbilicus, we find it to be in good order, and it has the appearance that properly belongs to it in a child of three weeks of age.

Looking at the lips, we find that they present a much redder color than normal, and on inspecting more closely we discover that they have been deprived of their epithelium. On questioning the nurse, we learn that the child does not swallow well, and we will probably find that the mouth is in a similar condition, which would naturally cause a difficulty in deglutition. Instead of the mouth having its normal coating it looks very red. Upon the palate there is a white patch, looking very much like an ulceration. We have, then, a condition in which the epithelium of the lips, tongue, cheeks, palate, etc., is absent, and besides this, a spot that looks like an ulceration. It is not an ulcer, but the opposite: an infiltration. There is no loss of substance, but, on the contrary, a slight elevation. Every loss of substance is produced by an inflammatory condition. The muciparous follicles swell and become raised above the level of the mucous membrane. Vesicles form, which burst, and then ulcerate. But such is not the case here. The white color cannot be due to a vesicular inflammation of the muciparous follicles. It is a fibrinous exudation, and these spots have received the name of aphthæ. Usually the vesicular disease that I have described is called aphthous stomatitis, but the only condition which should properly deserve this name is that in which there exists a fibrinous exudation. The other should always be called follicular stomatitis?

Now, what are we to do in this case? We must prevent the disease from getting worse, and by doing this it will get well spontaneously. Where the infant is fed so often, the cause must be removed. The milk that remains in the mouth after nursing becomes rancid and acid, and keeps up the irritation. A large number of the diseases of the mouth in infants is caused by want of proper cleanliness in not washing out the mouth after every nursing. The milk turns acid immediately, and consequently produces an irritation. In this case I should propose, then, to wash out the mouth carefully, and use a solution of soda or chlorate of potash. Simply introduce a few drops into the mouth frequently, and have it cleansed after every feeding or vomiting.

There is still something else in this baby that must be looked to. We learn that it has some diarrhoea, and that the mother suffered from cellulitis, with fever, while she nursed it. In these cases the amount of milk is usually changed. It contains less water, but as a rule the child



may nurse as long as the strength of the mother holds out. Nature allows of a great deal of latitude in the mother as regards the change of milk. It is very much of a question whether a change of milk in the mother was the cause of this infant's diarrhœa. It has had only six to eight passages in the twenty-four hours, but they looked a little greenish. This trouble can be removed by a few doses of grey powder. However, the nursing may be stopped; and if the child be fed on cow's milk, boiled and skimmed, and mixed with a little farinaceous substance, or gum arabic, the disease will get well. I should advise, at the same time, an anti-fermentative, such as calomel. A dose of opium, about 1-5 of a grain of Dover's powder, every few hours, might be useful. An antacid might also be used with advantage. There are the carbonates of lime, potassium, sodium and magnesium. In intestinal catarrhs we must distinguish between these salts. When the carbonates of sodium and magnesium are taken into the stomach, they will form organic salts, which are purgative. We should therefore choose potassium or lime. Chalk, then, would probably be the most suitable.

#### CATARRHAL PNEUMONIA.

The little girl that I now present to you has a history of catarrhal pneumonia. I shall not now go extensively into the history of this disease, but simply state that catarrhal, or lobular pneumonia generally comes on after an attack of bronchial catarrh. As a rule it will spread to both sides of the chest, and we shall have both lungs involved. We must likewise expect it to spread over a number of lobes. We may, moreover, anticipate a new attack in distant parts, when the old spots get well. This follows from the well known tendency of catarrhal inflammations to spread.

At the last examination of this little patient it was found to be worse on the left side, but now there is evidence that it has spread on the right side also. It is possible that these spots of catarrhal inflammation may be older than those on the left side, but were not noticed, because the other side was worse. We find increased and coarse respiration on auscultation, and dulness on percussion. On the other side we find some dulness, coarse respiration, and a few rales. On the right side it has undergone resolution in places. The respiration is diminished, which shows that a larger portion has become infiltrated, or that there is something between the ear and the lung. If there were increased infiltration, there would be bronchial respiration, but its absence would show a pleuritic effusion. On the right side, then, where there are considerable dulness, diminished respiration, and resolution rales, there has been pleuro-pneumonia.

And now we will take the temperature, to see whether we have to deal with a disease that is getting well, or whether there is an additional disturbance. This is often the only indication we can get of the progress of the disease. On looking at the thermometer we find the temperature to be 101° F. Thus, there is certainly not a great elevation of temperature, as it is only one degree above the normal heat in the rectum, which,

I may say, in passing, is the only place where the temperature of children should be taken.

The disease is still in progress, but there is no new inflammation going on. An elevation of temperature always means some active influence at work in the blood and nervous system. It may be the result of the distintegrating process taking place in the inflammatory material. There must have been a large amount of exudation in this case, which is now undergoing granular and fatty degeneration, and must be taken back into the blood. This causes the increase of temperature, and in many cases we often see this elevation continuing for weeks during the progress of this process.

The question now is, what to do. A chronic condition of this description, when not relieved, may be a cause of trouble for life. It may give rise to emphysema and consumption. The fever will take care of itself when the elimination is completed. We must see that the patient has good nourishment, and sometimes stimulants. Fluid or semi-fluid food should be given with, perhaps, a few drachms of brandy.

A patient suffering with, or recovering from, this disease may contract diarrhœa on account of the obstruction of the circulation. Beef tea contains a large quantity of salts, and when you give it pure and simple, that alone is sufficient to loosen the bowels. The constant result of giving beef tea in summer diarrhœa is to increase the disease. If you do give beef tea, mix with it something to counteract the effect of the salts.

As there is so much tendency to diarrhœa in pneumonia, do not give anything that has a tendency to loosen the bowels. An excellent plan is to give eggs, soft-boiled or raw; where the child cannot tolerate them, give the white raw, mixed with gum or barley-water.

As a stimulant we may use whiskey, or a quarter of a grain of camphor in water, or alcohol every two or three hours. Syrup of the iodide of iron is a very eligible preparation, as it is most digestible, and indeed often improves digestion, on account of its decomposition in the stomach, the iodine acting as an anti-fermentative. After some time, when the iron has done its duty, it may be well to give arsenic. It is one of the best nutrients we have, and in anæmic conditions it will not only strengthen, but fatten. It is an excellent remedy in all cases of anæmia and weakness.

In good weather, the child should be taken out, so as to have plenty of fresh air. In the meantime the temperature should be watched very carefully, to see how the progress of absorption is going on.



## ORIGINAL ARTICLES.

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### A CASE OF LICHEN RUBER.

BY

JAMES C. WHITE, M. D., BOSTON,  
Professor of Dermatology in Harvard University.

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THE patient, an American woman, unmarried, aged 30 years, had led an active life, and been in good health until August, 1876. The skin over the upper abdomen then began to itch and burn, at night especially, on removing the clothing, and looked red and inflamed. These symptoms lasted about an hour, and in the morning the skin appeared natural again. This condition continued a month, when the skin of the soles and palms, of the chin and throat, became affected in the same way. In December she noticed the appearance of dark, red, scaly patches upon the abdomen, thighs and arms, which increased rapidly in size, and upon the trunk extended around the waist to the back, and thence to the hips. Those upon the thighs grew to cover the whole leg to the knee. The eruption was everywhere accompanied by great itching. Arsenic and iron were prescribed in January by her physician, and later a tar ointment, which was applied two or three times a day. Under this treatment there was a partial subsidence of the symptoms. The redness and swelling of the skin and the itching were greatly relieved. Early in March she gave up the treatment, and went to work again as a clerk. Her feet and hands began to swell again immediately, and the eruption revived. This was the history she gave me on March 21st, 1877, when I first saw her, and her condition, which had been rapidly growing worse for two weeks, was then as follows:

The hands, with the exception of a small portion of the central dorsal surface, were uniformly thickened, and of a peculiar livid crimson color. These comparatively healthy areas were partially occupied by discrete, typical papules. The palms were cracked slightly in the lines of flexure, and these fissures, and the natural furrows of their skin, were filled with fine, white, dry scales. The arms, from the wrists to the elbows, presented a compact mass of confluent papules, forming a uniform infiltration marked on its surface by the tips of the primary papules. From the elbows upward the infiltration was less developed, and near the shoulder the skin exhibited only discrete papules. Around the neck there was a belt, about two inches broad, of confluent papules, abruptly defined above, but thinning out on its lower border into distinct scattered papules, which ran down upon the middle of the front chest to the breasts,

in a continuous belt of small, isolated papules. The remainder of the front chest and the breasts were sparsely occupied by small, discrete papules, the size of a pin's head. The surface of the confluent papules was generally covered with very fine, white, branny scales, and here and there some of the isolated papules were capped in the same way. The skin surrounding the axillæ, immediately below the breasts and over the umbilical region, was of a dull red color, without infiltration or papules, and covered with numerous very dark brown pigment spots, several lines in diameter. These were the earliest seats of the disease. The back and lower abdomen were nearly free from the eruption. The lower extremities, from the nates, hips and groins downward, presented one uniform condition. The skin was greatly thickened, intensely red, and its surface was in parts roughened by flattened, confluent papules, in other parts even and uniformly covered with the finest possible white scales. The lower legs were also oedematous, and the feet so swollen that the boots could not be buttoned. There was no apparent change in the nails or hair.

The only portion of the body wholly unaffected was the head; and the only parts which exhibited the initial lesion only, those which had become affected very recently, were the small areas upon the backs of the hands, which were rapidly filling up with new papules, and the upper chest. These papules were at first very small, individually, and almost colorless, rising abruptly from the general surface. They were very dense, as if firmly organized from the start. The tips were rather flattened than pointed, and they became slightly more elevated as they increased in diameter, which never exceeded two lines. They rarely reached one line in height before the successive appearance of new papules in the interspaces converted the whole district into an elevated patch of uniform infiltration, upon the surface of which the outlines or tips only of the individual efflorescences could be distinguished. The whole was of an intensely livid crimson tint, and readily shed fine, white, dry scales. The papules never exuded moisture, became vesicular or pustular, or presented any crusts or excoriations.

The mucous membrane of the lips, tongue and cheeks presented a white, thin coating (arsenical?), and the tongue was fissured. The parts were not over-sensitive, however.

The subjective symptoms were a slight degree of itching, tenderness on pressure over the flexures of the joints and the fissures in the palms, and partial immobility of the feet and hands. In the earlier stages, in fact until the tar ointment was used, intense itching was a prominent symptom, which never provoked, however, any eczematous reaction.

The general condition of the patient at this time was good. She was plump, and her digestion and menstruation were normal. She said that she felt "nervous," and that, when startled, her skin felt prickly. She was much troubled in mind about her disease, and about the difficulty in moving her hands and feet.

Fowler's solution of arsenic was directed to be taken, six drops three times a day; valerianate of zinc in two-grain doses, twice daily, was



prescribed; and the whole surface ordered to be rubbed at night with oil of cade, one part, and cosmoline, four parts.

For a week or ten days the patient was very uncomfortable, being confined to the bed on account of the great swelling of her limbs, but on April 13th she was able to go out again. At that date the former intense and livid redness had everywhere largely faded to a dull purplish or even brown color, and the œdema of the limbs was greatly reduced. No fresh papules had appeared. The skin over the legs and arms was harsh, and marked by the presence of pits, of irregular shape and size, abruptly sunk in the general infiltration, looking like those of small-pox. The fingers were very thickly covered with firm, white, mealy scales, but elsewhere the scalliness was much diminished. The arsenic was increased to seven drops, and a softening wash was directed to be applied to the skin by day.

*April 26th.*—The general irritation and redness of the surface was less, and the œdematous condition and cell infiltration of the skin were diminished. The pits were less conspicuous by the flattening down of the surrounding skin. The scales were mostly confined to the hands.

*June 11th.*—There was no longer any irritability of the skin. The pits, papules and scales had gradually and wholly disappeared. There was still some congestion of the skin everywhere, and dark-brown pigment stains were scattered over the whole surface, but they were rapidly growing paler. The hands only were still quite red and glazed, but they, with all other parts, had returned to the natural size. The patient stated that she felt nearly as well as ever again, and was desirous to return to her work. The local treatment was suspended, but she was directed to continue the arsenic in gradually diminished doses for several weeks.

In September the patient came to see me again, she had resumed her work, and was apparently in perfect health. The arsenic had been constantly taken. The only visible remains of the disease were a dryness of the hands and the presence of a few indistinct pigment spots upon the abdomen.

The case presented the most characteristic features of this rare disease—lichen ruber, Hebra—a very marked degree. These were: uniformity of development; the persistent unchangeableness of the papular efflorescence until, by multiplication, the individuality of form was lost in general infiltration of the integument; the peculiar purplish crimson hue; the fine scaly covering of the surface and crevices of the skin; the abruptly sunken pits in the infiltrated tissues; and the striking pigment stains in the parts longest affected. During its long course, and over its wide surface of distribution, there were none of the waxy papules with a depression upon the summit which Prof. Hebra describes as characterizing one of the forms of the affection. The rapid recovery of the patient, while taking arsenic, corroborates the later favorable opinions held by him concerning its action in the disease; but quite as wonderful improvement was noted by Dr. Taylor, of New York, in his cases,\* in which arsenic was not used.

\* "Clinical Notes on Lichen Planus, and Letter from Dr. Kaposi, of Vienna, concerning the same." *American Archives of Dermatology*, vol. i, pp. 30 and 134.

## TRANSLATIONS.

## SURGICAL CLINIC

*Of the Hospital Saint Louis*

BY

M. S. DUPLAY.

## PHLEGMONOUS INFLAMMATION OF THE HAND.

*(Reported by Ferrand, Provisional Internist.)*

GENTLEMEN:—We shall now see No. 55, ward St. Augustine, a patient aged 57 years, a brushmaker by trade, who entered the hospital eight days ago. He presents an inflammatory affection of the left hand and forearm, an affection caused by a very light prick which he made on the pulp of the thumb. It was, he tells us, a mere scratch, to which he did not pay any attention. It did not interrupt his work, and he contented himself with applying some alcohol to the injured finger. On the following day he commenced to suffer pain, and this pain increasing so rapidly, and the hand becoming swollen, he decided to enter the hospital.

What strikes you first when you examine the diseased hand, is its very peculiar position. This is, as we shall see presently, a symptom of great importance. The first phalanx of the fingers is in the upright position, on the same plane as the metacarpals. The two last, on the contrary, are flexed, and form, with the preceding, an obtuse angle, in such a way that the hand has the form of a claw. This is not a temporary position, which the patient can throw off or assume at will, but it is permanent, and if we attempt to modify it, the patient will tell us that we are causing him acute pain.

The study of this last symptom will detain us a moment. The pain during rest is acute, lancinating, and sufficiently violent to rob the patient of sleep. The pain provoked by movements impressed on the fingers to correct their abnormal position is equally acute, and is prolonged by the pulling on the flexor tendons.

The pain on pressure is interesting to study. It is present over the palmar surface of the thumb, the palmar eminence of the hand, and extends over the anterior surface of the forearm, to about three fingers' breadth above the radio-carpal articulation. In the palm of the hand it does not extend on either side much beyond the centre, but it invades the palmar eminence of the little finger. In the points where this pain is situated we have a swelling of the diseased parts from the base, without the appearance of fluctuation.

The hand, and one part of the forearm, above all its external side, present a rosy tint, to which I wish also to call your attention. The same parts also show an increase of temperature, easily appreciable.



If I add that constitutional disturbance is entirely absent; that all the functions are accomplished regularly; in a word, that the health is good, I shall have completely described to you the state in which we find the patient.

The four classical symptoms: swelling, redness, pain and heat, do not leave a doubt in our mind, and we have evidently to do with an inflammatory affection limited to the hand and forearm.

But what is the anatomical seat of this affection? What particulars does it offer for our study, as regards course and prognosis? What therapeutic indications does it give us? Such, gentlemen, are the questions we should put to ourselves.

As regards the anatomical seat of the disease, the symptoms that I have described correspond exactly to those which we should assign to an inflammation of the sheath of the tendons of the hand and wrist.

Here permit me to recount in a few words the general disposition of the synovial sheaths that accompany the flexor tendons of the fingers.

While the sheaths of the flexor tendons of the three middle fingers (the ring, middle and index) stop a little above the metacarpo-phalangeal articulation, those of the thumb and little finger are prolonged, on their superior side, to the common sheath which lines the radio-carpal canal, and in the majority of cases communicate with this common serous membrane. This, in its turn, extends upward to about three fingers' breadth above the radio-carpal articulation, and downward to the middle part of the palm of the hand, where it terminates in a *cul de sac* about two fingers' breadth above the line between the radius and carpus.

Now if you will recall the limits of the swelling and redness, you will see that they exactly represent those of the tendinous sheaths, and that a strict relation exists between the anatomical data and the symptoms observed. This is the reason we have localized the inflammation in the sheaths, and most surgeons would designate the affection which you have before your eyes as a tendinous synovitis.

In the present case the question seems most clear, so well are the different signs limited. But here we have a most typical case, and it is not always so in practice. Also in presence of certain facts, difficult to explain by the preceding theory, the existence of this tendinous synovitis has been thrown in doubt. According to Dolbeau and Chevalet, all the preceding symptoms could be explained as due to a deep lymphangitis, having the thumb as its starting-point. Numerous arguments have been advanced in favor of the theory of lymphangitis as opposed to that of tendinous synovitis: I shall not dwell on the point here.

In my opinion, in the present case, you can verify the existence of several symptoms which would be absolutely inexplicable under the hypothesis of inflammation of the lymphatics. How explain, for instance, the retraction of the fingers? According to M. Dolbeau, it is due to the contraction of the muscles in sympathy with the inflamed lymphatics. But here the tendons alone will be in connection with the lymphatics, seeing that the swelling and pain have not passed three fingers' breadth above the wrist. How can we admit a lymphangitis so exactly circum-

scribed; and, above all, how can we explain the progress which we have observed? At the beginning, the swelling and pain of the thumb extended to the palmar eminence and the anterior surface of the wrist, then two days later there was a sensible diminution of the pains and swelling in the thumb; but, in return, the appearance of these same symptoms along the palmar surface of the little finger. It is impossible that inflammation of the lymphatics should have followed a downward course. Now this mode of propagation is altogether abnormal in the history of acute lymphangitis, which follows the extremities toward the principal trunks. If we compare the difficulties of interpretation, under the hypothesis of a lymphangitis, with the facility with which we can explain the cause of the circumscription, and the progress of the phenomena under the doctrine of synovitis, we shall not hesitate to admit that our patient offers a very fine example of an acute phlegmasia of the synovial membranes of the fingers and wrist,—a synovitis which, originating on a level with the thumb, was propagated to the common radio-carpal sheath, and reached consecutively the sheath of the little finger, which generally communicates with it.

But, synovitis being admitted, how can we explain the development of the inflammation? If the serous membrane were open, nothing would be more simple. But it is not. The small wound, the starting-point of the trouble, is, I repeat it, nothing more than a simple erosion, altogether superficial. How, then, could the inflammation extend to the sheaths, they being so much more deeply situated than the causal lesion?

It is here, gentlemen, that we must call in the aid of the lymphatics; it is they which serve as intermediates to carry the connection between the injured skin and the diseased sheath, between the wound badly cared for, irritated by alcohol, and the serous membrane, quick to inflame, there being such slight thickness and such slight resistance offered to the inflammatory process.

As you see, I do not adopt, and neither do I reject completely the one or the other of the two theories, and, admitting, with Velpeau, the synovitis, I allow the lymphangitis to play a certain part.

Synovitis of the fingers and of the hand follows two very different courses. One form progresses rapidly, terminating in suppuration, and the fluctuation appears early. Such is the case we have seen at No. 32, St. Augustine ward,—a case in which we saw the gravest results come on in two days. The other variety has an insidious progress, much slower than the preceding. Sometimes the symptoms to which I have called your attention remain only a certain time, and then gradually grow better, and finally disappear. It almost ends in resolution, though there remains in the sheaths a plastic exudation to which I will return when I speak of prognosis.

Sometimes the symptoms persist, and there is formation of pus. Then the surgeon should watch the forearm with the greatest attention. It is in this point that the fluctuation, very evident in the thumb and little finger, is the most difficult to detect, on account of the great depth at which the purulent collection is found. We must be careful always to



search for it along the longitudinal axis of the limb. If, indeed, we search for it by placing the fingers at the extremities of the transverse diameter, the muscles, by displacing one another, will surely give a false sensation of fluctuation. I insist purposely on this point, for, according as there is pus or not, according to whether it is contained in the sheaths or diffused among the muscles of the limb, we ought to interfere in a different manner.

The prognosis varies according to whether pus forms, or the affection stops in the first period.

In the first case the situation is serious; under the action of a prolonged contact with the pus which they contain, the synovial membranes may, indeed, yield. The pus will diffuse itself among the muscles, so numerous in this region. Fluctuation will become manifest, and the patient will present constitutional symptoms. We will then have a complete abscess, which may invade the entire limb, involve the wrist in a purulent arthritis, and bring in its wake the whole train of symptoms that characterize pyæmia. We shall then be forced to perform amputation of the arm.

In the second case, that is to say when pus does not form, the patient will retain a little pain in the movement of the fingers, on account of the plastic exudation of which we have spoken. Now and then it remains enclosed. It is then that there is destruction of the tendons. The disease is then absolutely incurable.

In the first period of this disease we may employ the ordinary treatment directed against inflammations: immobility, position, leeches, emollients, local baths, mercurial frictions, vesications. If this treatment succeeds to relieve the stiffness of the fingers, we may employ rubbing and shower-baths. If, on the contrary, suppuration is produced, we should interfere energetically, and quickly give issue to the pus.

The incision should generally be made two or three fingers' breadth above the articular line of the wrist. It should be directed along the longitudinal axis of the limb, and we should cut through successively the skin, the fascia, and the muscular bundles.

The pus is situated at a great depth, on a level with the pronator quadratus. We should, in order to reach the interosseous space, use the channelled probe, and pass it as far as we are able in among the muscular interspaces. We obtain, in this way, a long and deep incision, which answers the therapeutic indications, it is true, but yet will not be satisfactory from every point of view. Indeed, on account of the depth of the incision, the easy approximation of its lips, which are entirely muscular, the pus will flow out badly. The wound will always tend to close, and the pus will make its exit in an intermittent manner; it will be necessary to separate the lips of the wound several times a day. An Italian surgeon, M. Parona, proposes to obviate these manifest inconveniences, by proceeding in the following manner: The incision should always be made on the internal side of the forearm, well extended in the longitudinal direction, leaving the ulnar artery above; the anterior surface of the ulna should be followed closely. We shall thus

quickly have reached the focal point, by passing between the flexor profundus and pronator quadratus.

By following this method we arrive most rapidly to the bottom. The lips of the wound do not tend to close as in the anterior incision. Finally the pus flows out more easily, because, in the habitual position, the forearm rests on its ulnar side. Such are the advantages pointed out by M. Parona. Without knowing the exact value of this operative procedure, I think that it deserves to be studied, and I propose to apply it on the next occasion that presents itself.

(The patient who was the subject of this lecture has nearly recovered. There is a little articular stiffness which is being treated by massage, shower-baths and electricity.)—*Le Progrès Medical*.—F. A. L.

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## HOSPITAL RECORDS.

### ST. VINCENT'S HOSPITAL.

Contributed by Dr. ABRAHAM G. WENDELL, House Surgeon.

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#### VESICAL CALCULUS.—LITHOTOMY (SERVICE OF DR. CHARLES PHELPS).

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M. F., aged 66, —married,—born in Ireland,—laborer,—admitted into the hospital May 2d, 1877. Family history indefinite. Denies venereal disease, and there are no symptoms of it. The patient had always been a strong healthy man up to eleven years ago, when he noticed, for the first time, some slight pain on micturition, a sense of pain and uneasiness in the pelvis and perineum; an occasional intermission of the stream of urine; pain and itching in the head of the penis, particularly at its orifice; a bloody state of the urine at times; frequent micturition; and during this period his general condition began to suffer, and he lost flesh, and became weak. His sleep was disturbed at night, his appetite impaired, and he was in every way “good for nothing.” Four years ago, after a debauch, he had complete retention of urine. This was relieved by the catheter, which was used for the following six days. Since this attack of retention, his sufferings increased, and he was obliged to give his business up entirely, as he could not work on account of the excessive suffering. He was advised by his physician, who made the diagnosis, of “enlarged prostate,” to use a silver catheter, No. 6, whenever he had a call to urinate. On examining the patient, we could notice in his countenance an expression of deep distress; the pulse was small, frequent, and irritable. He was thin and wan, the tongue covered with a whitish fur, and he complained, besides the symptoms above described in an aggravated form, of having no appetite; that he is harrassed with sour eructations; his bowels are irregular, and that lately he has had night-sweats. On examining the rectum, some soreness is felt as the finger is introduced, and on touching the prostate he complains of pain. This is found somewhat enlarged.



The introduction of Thompson's searcher produced no pain, and we readily detected the presence of a calculus, the size of which seemed pretty large, as far as we could ascertain.

*May 4th.*—Dr. Phelps examined patient to-day, and confirmed diagnosis; ordered to keep bowels open, and relieve pain by anodynes.

*May 9th.*—To-day, at 1.30 P. M., patient was put under the influence of ether, and Dr. Phelps, in the presence of the house-staff and several medical students, proceeded to operate by Le Drant's bilateral method, in the following manner: he made a semilunar incision across the perineum, beginning on the right side, midway between the tuberosity of the ischium and the margin of the anus, and terminating at the corresponding point on the opposite side. In this direction were successively divided the skin, cellulo-adipose tissue, and superficial fascia, together with a few of the anterior fibres of the external sphincter muscle. The end of the left forefinger was now placed at the bottom of the wound the staff sought, and the membranous portion of the urethra laid open. The nail of the finger was then applied to the staff, to serve as a guide to Wood's lithotome, the beak of which was inserted into the groove of the instrument, taking care, by moving the lithotome several times forward and backward, that it was securely lodged in the groove; the handle of the staff was depressed nearly to a level with the abdomen, at the same time that the lithotome was lowered and pushed onward into the bladder. As soon as the instrument reached the bladder, the point was disengaged from the staff, and this immediately removed. The lithotome was next removed, having divided the sides of the prostate in the same direction as the incision. The finger now took the place of the instrument, and having ascertained the situation of the stone, the forceps were introduced, and the extraction effected in the usual manner. The hemorrhage was easily stopped by the application of ice to the parts, and the patient, after having had his legs bound together by a roller bandage, was transferred from the operating-table to his ward. A soft rubber catheter was introduced into the bladder, through the wound, and left there. The patient came out from the effects of the ether remarkably well, but about an hour after, began to complain of chilly sensations, his extremities became cold, he had a feeble pulse, and imperfect, sighing respiration, nausea and vomiting, and in fact all that peculiar train of symptoms which denote shock. Stimulants in the way of hot brandy and water, warmth by means of blankets and bottles of hot water to the feet, a mustard poultice to abdomen, and a full dose of opium, to allay vomiting, were immediately administered.

These symptoms lasted for six hours before reaction was thoroughly established.

*May 10th.*—Patient in good spirits; he complains of pain referred to the neck of the bladder, and of a burning character, coming in paroxysms; his urine has passed through the wound in considerable quantity. He slept well. Temperature 100° F., pulse 98, respiration 18. The rubber catheter was removed.

*May 11th.*—The edges of the wound are considerably swollen, and the urine has ceased to flow through the perineum, and taken the course of the urethra. The pain in the wound is not so severe. He takes anodynes. Temperature  $101\frac{3}{4}^{\circ}$ , pulse 99, respiration 18.

*May 14th.*—The urine has ceased to pass by the urethra, and is passing again by the wound, with considerable pain. A dose of castor-oil was given to-day, and as the purgative was tardy in its action, an enema of tepid soap-suds was used, with good effect. Demulcent drinks are given *ad libitum*. Temperature  $98\frac{3}{4}^{\circ}$ , pulse 85, respiration 18.

*May 17th.*—Patient last night had a distinct chill, and began to complain of pain all over the abdomen; this is found tympanitic on percussion, the pain aggravated by pressure. Temperature  $103^{\circ}$ , pulse 110, respiration 23. There is complete retention of urine, and patient feels very bad. His catheter was introduced by the house-surgeon, and fourteen ounces of dark-colored urine, loaded with mucus, was drawn from the bladder, to his great relief. Ordered hot fomentations to abdomen, and a full dose of opium.

*May 18th.*—Patient relieved of pain, but condition of abdomen and bladder the same; the catheter has been used twice a day, and the same treatment continued. Temperature,  $102\frac{1}{2}^{\circ}$ , pulse 106, respiration 19.

*May 19th.*—There is pain on pressure on the abdomen, although on percussion it is found tympanitic; condition of bladder the same. Temperature  $101\frac{3}{4}^{\circ}$ , pulse 98, respiration 19.

*May 20th.*—Patient feels to-day pretty well; some urine is passing through the wound, but as this is not satisfactory, the catheter is still used with the same frequency. There is no pain in the abdomen; he has had a passage from his bowels, and the tympanites has disappeared. Temperature  $98\frac{3}{4}^{\circ}$ , pulse 85, respiration 19.

*June 1st.*—Urine began to pass through the urethra last evening, and but a few drops through the wound; patient's appetite has improved greatly, and his digestion is excellent; he complains of nothing except some soreness when he passes his urine.

*June 15th.*—The patient's condition has improved greatly. He has passed his urine entirely through the urethra for the last two days. Nothing comes through the wound, which looks healthy and almost closed.

*June 20th.*—The wound has healed entirely, and he is gaining immensely in his general health. He passes now a good large stream through the urethra with ease, and without pain.

*June 28th.*—To-day the patient was discharged, cured. The calculus was oval in its shape, smooth, and of a pale brownish color, in its broken surface, looked laminated, and in the centre there was a nucleus of about the size of a small marble, and of a dark brown color. Its weight was seven ounces and twenty-three grains, and measured two and one-tenth inches in its longest diameter, and one inch and a half in its shortest, and about one inch and a quarter thick. Its chemical composition was phosphate of lime, with some carbonate of the same, and the nucleus was composed of uric acid.



## PERISCOPE.

### COLLABORATORS.

*Dermatology*.—HENRY G. PIFFARD, M. D., Professor of Dermatology in the University of New York.

*Diseases of the Nervous System*.—EDWARD C. SEGUIN, M. D., Professor of Diseases of the Nervous System in the College of Physicians and Surgeons, New York.

*Diseases of Women and Children*.—FRANK P. FOSTER, M. D., Gynecologist to the New York Hospital Out-door Department.

*General Surgery*.—EDWARD J. BERMINGHAM, M. D., Surgeon to Bellevue Hospital Out-door Department.

*Genito-Urinary Diseases and Syphilis*.—ROBERT W. TAYLOR, M. D., Professor of Dermatology in the University of Vermont.

*Orthopedic Surgery*.—NEWTON M. SHAFFER, M. D., Surgeon to the New York Orthopedic Dispensary and Hospital.

*Practical Medicine*.—E. DARWIN HUDSON, JR., M. D., Professor of Practice of Medicine, Woman's Medical College, New York.

## THE AUTOMATIC METHOD OF REDUCING LUXATIONS OF THE HIP.

BY

ALPHEUS B. CROSBY, M. D. (*Phila. Med. Times*, June 23d, 1877, and *N. Y. Med. Jour.*, July, 1877),

AND

S. J. ALLEN, M. D. (*Ohio Med. and Surg. Jour.*, October, 1877.)

IN October last there was admitted to his wards, in Bellevue Hospital, a typical case of dorsal luxation (the toes resting on the opposite instep, there being very marked rigidity present, and abduction being entirely impossible), but which had been diagnosed as one of fracture of the neck of the femur within the capsule, by a physician outside, and treated as such for about thirty hours previous to admission. Under these circumstances he resolved to at once adopt the following plan: The patient having been placed on his back upon a blanket spread upon the floor, was thoroughly anæsthetized, in order to obtain complete muscular relaxation, and the legs were flexed at a right angle upon the thighs, and the thighs similarly flexed upon the pelvis, for the purpose of removing the strain from the ileo-femoral or Y ligament. Dr. Crosby then placed his hands under the calves of the legs, quite near the knees, and, raising the pelvis a short distance from the floor, made very slight abduction of the affected limb, when, in about half a minute from the commencement of the manœuvre, he had the satisfaction of feeling the head of the bone slip into its normal position. He explained that in this procedure the patient was made to perform the reduction himself, a sort of *felo-de-se*, as he termed it, the weight of his body supplying the extension, while the counter-extension was made by the operator, who performed simply the office of a post, though an intelligent one, to be sure. The method was first described to him by a friend of his in Vermont, Dr. S. J. Allen, who had hit upon it accidentally about two years ago, while in the act of lifting a patient suffering from this dislocation, so as to get him into a suitable posi-

tion for performing the usual manipulations attempted for the reduction of the deformity. Since then he has adopted the same course, with equal success, in two other similar luxations, so that Dr. Crosby's makes the fourth case in which the procedure has been employed. So far as Dr. Crosby has been able to ascertain, these are the only cases in which it has ever been done. In Dr. Bigelow's admirable monograph on luxation of the hip (a copy of which, strange to say, he found it difficult to lay his hands on in New York), he has found that the same position was used in a number of instances there recorded, but the method pursued was always different from that which he had ventured to call the automatic. (*Philadelphia Medical Times*.) Dr. Allen, in his report, adds another case, and repeats the views so ably presented by the late Prof. Crosby, without, however, even mentioning his name in connection with this simple and efficient method of reduction. To Dr. Crosby belongs the honor of having first given this method to the profession. E. J. B.

### PERSPIRATION IN SKIN DISEASES.

BY

MONS. AUBERT. (*Le Progrès Medical*, 1877, p. 672.)

THE author has studied the effects of cutaneous disease in modifying the perspiratory secretion. He made use of the following simple procedure: A piece of white paper is applied to the skin, and maintained in contact a few minutes. The sweat, as it issues from the follicles, slightly moistens the paper at points corresponding to their orifices. A dilute solution of nitrate of silver is then brushed over the paper, and the nitrate becomes converted into a chloride from the chloride of sodium in the perspiration. The chloride of silver blackens upon exposure to light, in this way mapping out the distribution, etc., of the sweat-glands. With the aid of this test-paper he has studied the secretions in naevus, ichthyosis, pelade, erysipelas, scabies, lupus, favus, herpes, psoriasis, etc.

Aubert's observations enable him to state that, as a rule, irritations of the skin completely suppress the perspiratory secretion, and that after their disappearance some time elapses before the secretion reappears. In cicatrices many of the glands disappear, but those which remain secrete more profusely than before. H. G. P.

### PROGRESSIVE PERNICIOUS ANEMIA CURED BY ARSENIC.

DR. BYRON BRAMWELL (*Medical Times and Gazette*, Sept. 22, 1877) reports a case of progressive pernicious anemia, treated and cured by arsenic, at the Newcastle-on-Tyne Infirmary. I. D., age 38, a chemical worker, admitted Nov. 26, 1875. Extreme shortness of breath, pal-



pitiation, swelling of feet, hands and face, and general debility. Sickness began seven months previously with rigor following exposure to wet and cold, weakness and pallor progressive, hair had grown grey, vomiting and frequent diarrhoea. Fourth month, slightly jaundiced, muscles became soft, giddiness and faintness on movement. Loud blowing murmurs at all the cardiac orifices, mitral most marked; venous hum on both sides of neck. Pulse 76, full, jerking, and of low tension. Tongue clean, moist and pale. Liver dulness normal, splenic dulness slightly increased. Urine normal quantity, pale, neutral, Sp. Gr. 1,020, no albumen or bile. Headache, singing noise in left ear; sight dim, pupils widely dilated, but sensitive to light, fundus bloodless, no retinal hemorrhages. A drop of blood showed no increase in number of white corpuscles, but great variety in size, symmetry and form of red corpuscles, oval red cells and irregular contour and processes being noticeable. Treatment by iron, quinine and phosphorated cod-liver oil, without benefit; grew steadily weaker, and retinal hemorrhages developed. Was put upon liquor arsenicalis two minims three times a day; steadily improved; was discharged January 26th, 1876, and treated as an out-patient until cured.

E. D. H. JR.

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### ABOUT BOOKS.

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*Wood's Physician's Vade-Mecum and Visiting List.* Philadelphia, 1878.  
J. B. Lippincott & Co.

THIS little book is intended to be carried in the physician's pocket, and to serve as a record of his daily practice. The arrangement of that portion devoted to accounts of visits, etc., we do not like quite so well as that in the corresponding volume of Lindsay & Blackiston, but this contains, in the front, a useful collection of facts that it is very handy for a physician to have about him. The most prominent of these are a list of poisons, with the symptoms produced by them, and their antidotes, a list of doses, and a number of diagrams, with explanations, showing the motto points on the cutaneous surface at which to apply the poles of a battery for electrization. In No. 15 of this Journal, in reviewing Dr. Dunglison's *Practitioners' Reference Book*, we took occasion to condemn all vade-mecum compilations, but in this instance we must make an exception. Here the material is short, intended to be carried about and referred to when no other source of information is available, and applicable only to emergencies. We may quote from the author's preface, to show his intention: "In the printed matter it is not intended to supply lack of education on the part of any one, or to replace larger books. The most highly educated persons, as well as the ignorant, are liable to forget, and knowledge which has lain unused for many years may be so covered up that it cannot be found in a sudden emergency. Thus, a physician may not

have seen a serious case of poisoning in twenty years of practice, and yet the life of a patient may suddenly depend upon his prompt, immediate, and skilful attention. It is to remedy this forgetfulness in an unexpected emergency, to which all human beings are liable, that the preparatory matter is intended."

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*Outlines of Modern Organic Chemistry.* By C. Gilbert Wheeler, pp. 231. New York and Chicago: A. S. Barnes & Co., 1877.

IN this work the author endeavors to give an outline of the most important facts in organic chemistry. This science, which, during more recent years, has assumed gigantic proportions, is most imperfectly taught in all our medical schools, and, we may add, is not at all understood by perhaps more than one in a thousand of medical students. It needs no argument to sustain the assertion that medical men should at least possess some ideas on this subject. The reason for the vast amount of ignorance that prevails may be found in the fact that the science, though of comparatively recent growth, is composed of such an immense number of perplexing facts and bewildering details that it has hitherto been impossible to give them definite shape in a small compass. The present work will be found an invaluable aid to those who may desire to obtain information from a concise, intelligible, and, at the same time, thoroughly reliable source. As a text-book for the student, we may say, without hesitation, that it is the simplest and most compact work we have seen, and, as a guide for the course to be followed by a teacher, it is excellent. It is not often that we can so heartily recommend a text-book as in the present instance.

The typographical execution of the work must not be left uncommended. Although, at the present time, scientific works are so generally gotten up in handsome style, this volume is not excelled by any in elegance.



# THE HOSPITAL GAZETTE

AND

## ARCHIVES OF CLINICAL SURGERY,

A Semi-Monthly Journal of Medicine and Surgery,

EDITED BY

Edward J. Bermingham, M. D., and Frederick A. Lyons, M. D.

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### EDITORIAL.

#### ELECTICISM AND THE "VIRGINIA MEDICAL MONTHLY."

FOR many years past there has been an institution in Philadelphia at which medical diplomas could be obtained, either by writing for them or applying in person, provided the money was paid. So flagrantly has this institution conducted its traffic, and so frequently have its diplomas been found abroad, that it has become almost a doubt in the minds of Europeans whether any American diplomas were anything but *purchasable*

*parchment.* In the issue of THE HOSPITAL GAZETTE for October 15th, we were enabled to trace home one of these diplomas, and we stated where one of them had been seen. At the same time we pointed out to some of our fellow-journalists that they had been made innocent victims, and had admitted to their columns long articles on the virtues of a "Glycette of Kephalline," which were in reality nothing but the advertisements of one of the professors of this college. We had supposed that when this exposure was made, and the facts furnished, all who had been innocently victimized would immediately make all the amends in their power. Such has been the case with most of the journals; but one, the *Virginia Medical Monthly*, Landon B. Edwards, M. D., editor, has taken just the opposite course, and instead of noticing our article, or making inquiry of us, if he were not satisfied with our statement, has admitted a letter from this *professor* filled with personalities against us, and, in addition, has prefaced this letter with an editorial defending this "being." The editorial is, if anything, more abusive than the letter; and what makes the whole matter so much worse, is that he allows this fellow to characterize our statements as "utterly false" and "transparent falsehoods," when he does not furnish a single fact to disprove our statement.

We made a statement that a person had seen one of these diplomas that a foreigner stated that he had purchased, and that several other persons were cognizant of the fact. We also pointed out how one of the officers and faculty of this "university" has been making use of respectable journals to advertise in their "original communications" his worthless medicine. We stated that we had had this nostrum analyzed, and that it did not respond to any of the tests of the article which it claimed to be. We pointed out the miserable ignorance in chemistry of this pretender to science, and for these helps to the advancement of the profession. Dr. Edwards accuses us of "very harsh and vindictive criticism," and "because of the unpardonably severe nature of these several publications, should they be untrue, \* \* \* we give editorial publication to the following letter" from Dr. Polk:

"*Dr. Polk and the Regular Medical Profession.*

"2349 CATHARINE STREET, PHILADELPHIA, PA.

"November 4th, 1877.

"*Mr. Editor:*—It is but just to yourself, and the readers of your excellent journal, who have so kindly and appreciatively received my paper on *Tubercular Phthisis*, that I denounce the charge contained in the HOSPITAL GAZETTE, and that I am connected with the American University, as utterly false. I am not connected with any medical or pharmaceutical school, and am observing, to the best of my knowledge and belief, the Code of Ethics of the American Medical Association. The other statements in the editorial of the HOSPITAL GAZETTE are so transparently false, that I need not discuss them. Yours, C. G. POLK, M. D."

In this letter Polk denies that he has any connection with the American University or other college, and infers by his strong language that it is a disgraceful institution, with which he never had any communication.



We will not state that his denial is "transparently false," but will simply give a copy of an advertisement in the *Eclectic Medical Journal of Pennsylvania*, on the outside cover of which is:—

"American University of Philadelphia."

Department—"University College of Pharmacy."

Officers of the College:

Charles G. Polk, A. M., M. D., Phar. D., President.

Faculty:

Charles G. Polk, A. M., M. D., Phar. D., Professor of Materia Medica."

Another advertisement, occupying the whole of the last page, reads:

"American University of Philadelphia,

Medical Department.

Eclectic Medical College of Pennsylvania,

Sessions of 1877 and 1878,

October 1st, and continues to July 1st, 1878.

Faculty:

Charles G. Polk, M. D., Ph. D., Professor of Surgery, Theoretical and Practical."

Thus, we see, in spite of Polk's denial, and in enlightenment of Dr. Edwards, that Polk is president, and one of the faculty of this "university," for the session 'till July 1st, 1878. No resignation of yesterday, or dismissal of the day before, would change the character of his position, and his statement that he is "observing, to the best of my knowledge and belief, the Code of Ethics of the American Medical Association," is but another of his attempts at fraudulent representations.

After all there is some extenuation for Polk; there is but little for Dr. Edwards. Polk has been in the habit of living by the same means, thinking in the same manner, making use of all that he could grapple into his net, as the other members of the "university" have done; he is but following out his instincts; but Dr. Edwards is a gentleman, the editor of a respectable journal, and he ought to know better than to accuse his professional brethren of publications known to be untrue. No one, quicker than Dr. Edwards, would feel offended at the same language. Dr. Edwards, also, has not weighed the prestige that such an abusive editorial as his will give to "Professor" Polk. Again, Dr. Edwards, in his editorial, gives full credence to what Polk affirms, in preference to what others, better informed, say; he says: "Dr. Polk affirms, upon what seems to us sufficient evidence, that glycerite of kepheline is useful, etc., and before we can regret having made the publication, it is to be proven that Dr. Polk's facts are all fancies." Where are the facts? Only the statements that have been made by Polk himself in his "original communications" to his innocent victims, whereas Dr. Edwards includes the *Philadelphia Medical Times* in his "very harsh and vindictive criticisms," and in that journal for Nov. 10th is an *exposé* of Polk's utter ignorance of the chemistry of the brain compounds.

In Dr. Edwards' editorial we have Polk's denial to our charges. We expected nothing less. What are these denials worth? Do they prove anything but what we before stated, that Polk was living a life of

plagiarism and falsehood? Will Polk pretend to deny that his name was attached to the diplomas of "The Medical Department of the American University of Philadelphia?"

What has Dr. Edwards to say? He cannot, we think, but by this time be fully aware of Polk's position. Will he give to each of his "very harsh and vindictive" critics the *amende honorable*?

## LECTURES.

### LECTURES ON PARALYSIS AND CONVULSIONS, AS EFFECTS OF ORGANIC DISEASE OF THE BRAIN.

Delivered at the Bellevue Hospital Medical College.

BY

C. E. BROWN-SEQUARD, M. D., ETC.

The following lectures are not presented as a *verbatim* report. They have been somewhat condensed in order to economize space, being of too great length to be published in full in the journal.

#### LECTURE I.

GENTLEMEN:—In the beginning of the course of lectures that I shall now have the honor of delivering to you, it is important that I should say that there are two kinds or types of manifestations of cerebral disease. There are two sets of absolutely distinct manifestations of cerebral lesions, which can, however, be brought, and moreover ought to be brought, to one common type. The first variety consists in the immediate stoppage or arrest of a function, or of any activity, and the other set consists in exactly the reverse, *i. e.*, the setting in play of an activity, or the increase of a function. The difference lies, then, in the state produced in an activity or a function. In one case there is an inhibition, an arrest; while in the other there is the setting in action of a power, or a function. But, as I will try to prove hereafter, there is an element common to both these conditions. The first is identically the same as the second, as regards that element. A cessation of activity depends upon one and the same cause, as a stimulation of activity. In both instances an irritation starts from the place of a lesion in the brain; it is forwarded to cells at a distance, and there acts on these parts so as to stimulate them to act, or to inhibit their activity. So a hemorrhage in the brain, irritating the part where it is, causes, through the propagation of that irritation, to cells at a distance either convulsions or paralysis, or both successively, *i. e.*, an action, or the cessation of an action. We have to deal in reality with one great source of difficulty; we have to recognize only one kind of disturbance. There are, in truth, no varieties, and it is most important to recognize this view, not only to satisfy our minds in regard to the explanation of the phenomena that occur, but also because it leads to a rational system of therapeutics; and I may say at once, as a sort of preface, that these therapeutic means, which are in accordance with what I state, will, in a short time, become more fully developed; some of them have already been fully proven, and others will follow.



Before going further, I will add that in our time the means of treatment of brain diseases have made a wonderful start, and are rapidly improving; and certain facts, which I shall have to relate further on, prove this assertion. The mere application of a plate of metal to the body, or the passage of a galvanic current, is known in many cases to produce wonderful results. If you see a case of epileptiform convulsions, before the loss of consciousness has occurred, it may be arrested at once. An immense new field is open to us; we have to deal with a means of treatment which, if properly applied, produces results of an exceedingly interesting nature. It will cause the cessation of paralysis and convulsions in a most miraculous manner. I do not wish to convey the impression that we have as yet arrived at perfection in this new method, but the field is very broad, and stretches open before us.

I now come to the point of this lecture, which, I will remark, is merely introductory to what will follow. All the facts with which we are acquainted, as regards paralysis and convulsions, may be explained most easily and naturally by a theory that I shall bring forward, while they are in direct contradiction with the old theories which have hitherto been held. When you see a patient attacked with paralysis on one half of the body, as, for instance, paralysis on the left side, with slight paralysis on the opposite side of the face, and a series of other symptoms, according to the old theory the disease must be situated somewhere in the pons Varolii. With a lesion situated in the same locality, we might have a paralysis on the right side of the body and the left side of the face; or, again, the whole body might be paralyzed completely. In this case we have to deal with an affection of the base of the brain. We may have a paralysis depending on a lesion on the same side of the brain. In one case we have paralysis on the right side, in the other on the left, but the seat of the disease is the same in both instances. In one case it causes paralysis on one side, in another, on the other. Now suppose a third patient comes to you with disease in the same part; he has paralysis only in the lower limbs, with none whatever in the upper; the face is paralyzed on one side, and the orbicularis muscle is also involved. You see the contradiction of these three cases, and you will hesitate in forming an opinion, unless you know that, when disease exists in one part of the brain, paralysis may occur on the same side of the body. If you were not led by this knowledge, you would not make a diagnosis.

You may have still a fourth case. A patient may have total destruction of the pons Varolii, and no paralysis whatever in the limbs, though there may be some in the face. You would be at a loss to locate the lesion unless you knew that destruction of tissue can exist without producing paralysis in the least degree. You could not arrive at a conclusion on the subject unless you were aware that a disease can exist anywhere in the brain, and produce entirely different symptoms.

I am fully cognizant of the fact that the views I am to criticise are those that are held by most at the present time. These views have been founded on a series of facts which it is not necessary at present to enumerate. After these opinions had been put forward, it was discovered

that the fibres of connection decussate in the upper portion of the spinal cord. It was observed that a lesion in one-half of the spinal cord produced paralysis in the corresponding side of the body, and a disease of the brain produced paralysis on the opposite side. I have no hesitation in saying that these ideas are absolutely and radically false. Paralysis does not depend on the destruction of a nerve centre or of a conductor. The most that can be said is that it does so depend in some cases only. If you take away the whole brain, of course you will get paralysis, as there is entire loss of sensation, and you have taken away the centres of the voluntary will-power.

In the first place let us see about the decussation in the spinal cord. The facts which lead to this view are two: The first is, that section above this point produces paralysis on the opposite side; and the other is, that destruction of tissue, down to the anterior pyramids, likewise produces paralysis on the opposite side of the body. These experiments were instructive, but there are others which overthrow them. I have been able to ascertain that the anterior pyramids can be cut without a trace of paralysis. Both of the anterior pyramids can be cut, and no paralysis follow. If the anterior pyramids, then, are employed as conductors between the will and the muscles, they are certainly of secondary or very slight importance, if the connection exists at all. Now comes a difficulty which Schiff has tried to solve. He endeavored to show that the decussation takes place in the pons Varolii. There are cases in immense number of disease of one-half of the pons Varolii, in which paralysis existed on the same side. Destruction of the whole half of this portion of the base of the brain has produced paralysis on one side only, whereas, if decussation existed here, the conductors from both sides would be destroyed, and paralysis of both sides of the body would result. I have collected thirty-two or thirty-three cases of destruction of one-half of the pons Varolii, which should produce complete paralysis on both sides, but has not done so. We cannot, then, admit that decussation takes place either in the pons or medulla oblongata. In the next lecture I will show that decussation takes place in the spinal cord. There is no doubt that one-half of the brain has a great power of action on the other half, through the anterior pyramids of the medulla and the pons Varolii. It is simply a power of changing the action of the cells in the spinal cord, and not a paralyzing influence.

Change in nutrition of cells produces paralysis in most cases. In disease of certain parts there is a transmission of the degenerative changes to the opposite side. In the posterior part of the lateral columns decussation occurs. A great alteration takes place in distant parts, by producing irritation in any one part. We can produce, at will, epileptiform convulsions in guinea-pigs, by irritation of certain points. A change of nutrition takes place very rapidly in the opposite side from that in which the injury is made. In all the organs of the body a change may take place in one side from irritation or injury of the other, and the same thing occurs in the nervous system. The irritation is propagated from one part to another. In some cases there is stimulation of function, and in other cases there is loss of function.



If we cut one of the posterior columns of the spinal cord, we will get loss of sensation on the same side; if we simply prick it, we may get the result on both sides. We may, by the apparently lesser injury, get more extended effects. The prick produces irritation, and the power of irritation is immense. If you look upon the fact in its proper light, you will find that the irritation may spread according to the idiosyncrasy or individuality of the animal. A simple irritation, such as that produced by a prick, may have an immense variety of effects. If such an irritation is produced in the brain, the animal loses the power of will, and all the cerebral activities are arrested. There may be an inhibition, if you choose to call it so, of most of the activities of the brain and spinal cord. The irritation must be diffused so as to stop the activities of the cells. A stoppage of the heart's action may be caused by irritation of the inhibitory centre. I think we may admit that paralysis is a mere arrest of the activity of cells. If you irritate different parts of the brain you may get a general paralysis, as sometimes exists in what is called general paralysis of the insane. You get a cessation of the power of vision, by pricking the optic nerve on the opposite side. We may see, by irritating certain nerve cells, great alterations in the lungs; in one case a hemorrhage, in another a different change, and so on. Hemorrhage of this nature is not unfrequently produced, as in the case of a certain gentleman in Philadelphia, the founder of a large institution there, who died from a hemorrhage in the lungs, produced by an irritation of cells in the pons Varolii. In animals we can produce this effect at will.

I will say, to complete the idea, that I shall try to prove that paralysis may occur from an activity of the inhibitory cells, and also from an alteration in the nutrition of parts. The mal-nutrition may occur, not only in the cells of the spinal cord, but in the nerves, muscles, and every part of the system. The first cause, then, is inhibition, and the second, alteration of nutrition; and, if you ask why a paralysis may occur on the side opposite to a lesion, the answer is, that it will cause an alteration of nutrition on the side opposite to the primary irritation. There is no difference between the kinds of paralysis or convulsive movements, whether the disease be epilepsy, chorea or catalepsy; all of these movements can appear on either side of the body indifferently. The theories generally admitted are certainly false, as we have shown that paralysis may appear on the same side as the causal lesion.

There is still another fact of importance: If paralysis depends, as is supposed, on a destruction of centres or conductors, we would not find, as in most cases, that paralysis of the same muscles, or groups of muscles, can be produced by lesions in widely different situations. The common type of hemiplegia, from brain disease, will come on, no matter in what part the lesion may be. We cannot admit that the nervous centres are situated in different places in different individuals; and how can we explain the reason why lesions, in different localities, should produce the same effects? Take the crura cerebri, which consist of the motor fibres coming from their centres. In disease of these parts, we should have the paralysis located in certain muscles, according to the seat of the disease, according

to the fibres implicated. But we find, on the contrary, that, whatever the seat of the disease, the muscles affected are the same in every instance. In two hundred and sixty-nine cases of paralysis of the arm, a lesion was found limited in a certain place: the ascending frontal convolution. Now, if the conducting fibres, in connection with the two ends of the nervous route, remained isolated at the base of the brain, a disease in the centres would always produce paralysis of the arm. In point of fact, it is found that such a lesion may produce paralysis of the leg, or no paralysis at all, or paralysis of the whole body. Now, if the centres of motion for the arm are seated in the anterior ascending frontal convolution, paralysis must be produced by irritation, for I have collected forty cases in which disease of the posterior lobe produced paralysis of the arm; and forty cases, also, in which the disease was situated in the frontal lobes of the same side. In other cases, again, disease situated in other portions produced the same symptoms. We cannot admit, as I mentioned before, that the motor centres are situated in different locations in different individuals; so that there are no grounds whatever for deducing from a number of cases of paralysis of certain portions of the body that the centres for the paralyzed muscles are situated in the place of the lesion.

My former pupil and assistant in London, Dr. Hughlings Jackson, has tried to show a relation existing between particular forms of convulsions and lesions in particular spots. He endeavored to show that irritation of the convolutions surrounding the corpus striatum produced convulsive movements on the opposite side of the body. In a paper recently published, I gave more than one hundred and sixty cases of a lesion of one side of the brain producing convulsions on the same side of the body. According to old opinions, we ought to find the convulsions occurring on one side from lesion of the opposite.

There are a great many facts that go to prove that all the old views are entirely wrong. I will only say at this time that an irritation is propagated by fibres from one side to the other. In cases where there is disease of both sides of the brain, the convulsions may appear in only one side of the body. We often see, in a great many cases, an irritation in some part of the system produce effects in a part at a distance. Thus, you take a number of persons coming out of a warm theatre into the cold air, with a portion of the neck exposed; the cold draught, striking the same part of the body, and causing an irritation, may, in one person, produce a pneumonia, in another a peritonitis, in another an inflammation of the bladder, in another a simple cold in the head, and so on. The same irritation in the same part is the sole cause in the whole number of cases, but the results produced are infinite in variety. As you see, the effects vary according to the idiosyncrasy of the individual. So in brain affections, which sometimes appear on one side and sometimes on the other, producing paralysis either on the same or on the opposite side of the body. When you accept these views, that the effects appear, not because there is a loss of function, but on account of an irritation; when you admit that the old views are wrong, you can explain all the phenomena



that occur, and you will be ready to adopt the plans of treatment I will describe, and apply them successfully.

I have now but a few words to add to what I have already said. If you examine what takes place in the phenomena of brain disease, it will lead you to think that the brain is independent. Only a very few fibres of connection between the brain and spinal cord are sufficient. It has been assumed that, as regards the power of the action of the will on the muscles, the brain must be considered as the keys of a piano. When the will acts to produce a movement, it was supposed to act upon the nerves, as the fingers upon the keys. This cannot be so, as the fibres of connection between the brain and the spinal cord are very few in number. There are many cases where great destruction of tissue takes place without destroying the conductors. The will-power acts by a sort of telegraphic communication in producing its effects.

I will simply say here, although I cannot as yet give proofs, that there are other powers of the intellect besides the ordinary mental powers. These latter are extremely limited, and cannot reach beyond a certain point. But there are those among you, gentlemen, sitting in the seats before me, who, perhaps, one of these days, will make some discovery or invention that will make a revolution in our theories and practice. There are those who have the gift of genius, which is superior to the ordinary mental powers. Discoveries are made, not by the ordinary mental powers, but by something above and beyond them. The former puts a question to the latter, and it sends back the answer. We see this illustrated on certain occasions, when we are endeavoring, with all our powers of concentration, to recollect a name that we have forgotten, when, suddenly, when we are not thinking of it, the name returns to our memory. This is due to the action of that power of which I have spoken, which is beyond the ordinary mental powers.

The will-power acts on the nerves by a sort of telegraphic communication, and does not act on special muscles at one time, but produces variety and complication of movements at the same time. It never gives an order in this way: "I wish this muscle to act." Those who use their muscles the best, and with the greatest effect, are never conscious of their doing so.

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## CLINICAL LECTURE ON FRACTURE OF THE FEMUR.

Delivered in the Amphitheatre of Bellevue Hospital, New York.

BY

FRANK H. HAMILTON, M. D., Surgeon to Bellevue Hospital, etc.

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GENTLEMEN:—I have to-day entered upon my duties at the hospital, and shall be pleased to show you, from time to time, the cases under my care. I shall to-day show you some cases of fracture of the femur which have united, or are uniting, under the plan of treatment that I have successfully used for the last few years. I shall show you these patients,

in order that you may understand the peculiarities of our practice; and see the points of difference that may exist between it and other methods of treatment now in use.

In order that you may fully appreciate what I shall have to tell you, it is necessary that I should call your attention to the progress that we have made in the treatment of this injury during the last century. In doing this, I shall limit myself entirely to the consideration of fractures of the shaft of the bone, not including fracture of the neck or of the condyles, and, furthermore, my remarks will be confined to fractures occurring in adults. The treatment of fractures of the neck and condyles and of the shaft in children, requires special consideration, and I wish to speak now of the general management of fractures of the shaft in adults.

First, then, I wish to remark that fractures of the shaft of the femur are almost always oblique, so much so that it almost never happens that we can set them, in the ordinary acceptance of that term. They are almost invariably so oblique that, unless we can manage to keep them constantly in position by means of extension and counter-extension, the fragments will override each other to a considerable degree. These specimens which I have brought here to show you, will illustrate this fact very nicely. There will always be as much extra thickening as you see in the bone that I hold in my hand, unless you can overcome, by some means, the force of the powerful muscles that cause the displacement, for two, three or four weeks. In any case there will always be as much projection as the thickness of the shaft of the bone. You will observe the same thing in this specimen, though the fracture was higher up in the bone. There is a distance of four inches between the points of the fragments. You see at once that there can be no such thing as setting. The ends of the bone may be placed in a favorable position, and held there, but they will never hold themselves. In this instance, although extension was made, and plaster of Paris applied while the patient was under chloroform, you see how much shortening there has been. The patient died a few years after the injury, and, on autopsy, it was found the shortening was as much as could be permitted to take place. The lower fragment had overridden the upper until it had ascended as high as the neck of the bone, which would allow it to go no further. In this third specimen, also, you see the overlapping of the fragments, but here you see, likewise, that there was an extraordinary proliferation of bone.

Here, then, is the question that confronts you in the beginning: How is the tendency to overlap to be overcome? Not by setting and bandaging, because the muscles act too powerfully to allow the fragments to be held in place; lateral supports would not be sufficient, as this method would not prevent shortening. How, then, I say, are we to overcome it? Until the latter part of the last century all surgeons employed a straight splint, simply pulling the limb out, and binding a long splint to it. This method is illustrated by the splints I now show you, that were given to me by a surgeon who served under Stonewall Jackson. It is a simple and practical device, and was employed by the surgeons who followed that great commander. It was the only device which could be



employed and conveniently conveyed by an army moving only on horse-back. Essentially this plan of treatment was followed up to the time of Pott, of England, who wrote a brief essay on fractures, declaring that hitherto fractures of the thigh had always united with shortening; but he suggested an improvement on the old plan, which was soon accepted by English and American surgeons, but not by the French and Germans for some time. This improvement was the flexed position, and it soon became known as the position of the double-inclined plane. His theory was a specious one. This plan of treatment by the double-inclined plane or flexion has its advocates up to the present time. In the United States it has been adopted chiefly by Dr. Nathan Smith and his son, and by Dr. Hodgen, of St. Louis, each one of whom, however, employs also suspension. There are, as I have said, a few leading surgeons who use it still to-day, but almost universally we have returned to the straight position.

There have been many forms of splints for the straight position. There was Boyer's apparatus, in which there was a screw at the bottom, to pull the leg down. Then there was Dessault's modification, and after these there have been an almost inexhaustible number. There are no less than thirty or forty that I could mention. Here is one with a screw working inside of a box, and a strap to attach to the foot. Here is one invented by a Canadian surgeon, which has a screw at the bottom, and a cross-piece to keep it steady on the bed. This is Bowen's splint. Here is still another; but it is useless to show more of them, there is so great a variety; they are, however, all modifications of the old long splint. Now, how did they contrive to get hold of the foot, in using this form of apparatus? Always by means of a gaiter. Here I show you Gibson's, which, as you see, is well padded, to prevent excoriations. Here is another, which has the virtue of being red, and there are a great many others, all so devised as to prevent, if possible, excoriations of the skin. But, notwithstanding the numerous kinds, there always was ulceration when the extension applied was equal to fifteen pounds. I have seen many of these, sometimes enormous in extent, that have lasted for many years.

Now, in the straight position, besides extension, we must have counter-extension, and our next inquiry must be to see how this was accomplished. It was always obtained by some mode of pressure in the perineum. At first, a long splint, padded, was pressed up in the perineum, and bound to the limb. Then a perineal band was used, flat or round, placed between the thighs, and fastened at the head of the bed, or to the upper end of the long splint. The best of these was a flat pad, of cotton, sewed up in stout linen. But all of these methods were extremely liable to cause bad ulceration and sloughing in the perineum, especially with delicate females. I recollect a case of a man who had an ulceration as broad as my hand, and very deep, that it took a long time to heal, caused by one of these perineal counter-extending bands. So here we were between two evils: first, trouble with the extending band at the foot; and, next, the same difficulty with the counter-extension at the perineum. We were always limited in extension to ten or fifteen pounds, and never could go beyond

it without fear of producing the most disastrous results. At length, Josiah Crosby, of Hanover, devised a method of obviating these difficulties by means of adhesive bands, which took hold on both sides of the leg, all the way up to the knee, and thus distributed the pressure so that it did not fall on any one part. In this way the instep was saved from bearing the brunt of the force, and it was found that an extending weight of twenty pounds or more could be used, and never cause an ulceration. This method was invented twenty-six years ago, and was one of the greatest triumphs of surgery.

As a means of counter-extension, Dr. James L. Van Ingen, of Schenectady, first suggested raising the foot of the bedstead. More than twenty years ago he sent me a letter in which he described his plan. I said, at that time, that it would not do, as he elevated the foot of the bedstead about two feet. I did not believe that it would answer, as the position was too uncomfortable for the patient to remain in for any length of time. The idea, however, was an excellent one, to use the weight of the patient's body as the counter-extending force. Dr. Moore, of Rochester, however, took up the idea, and pretty soon it became generally adopted. It was soon found that it was not necessary to raise the foot of the bed so high, and still gain the object; four or six inches will suffice, and the position of the patient is by no means uncomfortable. It is now many years since I have seen a perineal band in use.

This, gentlemen, is what we have thus far gained in the treatment of fractures of the femur. We have found a means of extension by which we can apply twenty to twenty-two pounds of force, and the same with counter extension. We are now speaking of the injury as occurring in adults; when the patient is a child, we do not need so much force. In placing the patient in position, the pillow must lie under the head only, and always away from the shoulders; otherwise, we can only utilize the weight of the pelvis for the counter-extending force.

Now, why is it that we can only use twenty to twenty-two pounds of extending weight and no more? The reason lies in the fact that the force must be limited by the ability of the ligaments around the knee-joint, and especially the posterior ligaments, to bear the force of extension, and these cannot bear a greater amount of extension. The pain produced by the stretching first begins behind, as these ligaments are not accustomed to tension. In the normal position the posterior ligaments are not put upon the stretch. We never stand perfectly straight, and if we try to do so for a moment, the tension upon the posterior ligaments causes pain. When we apply the extension apparatus, we are pulling upon ligaments that are unaccustomed to a strain. Some individuals will endure twenty pounds, and some even twenty-five pounds, but the last is excessive. My rule is to apply the extension at first very moderately, and add to the weight until the patient cries *pecuni*. These, then, are the steps of progress, and they are easily marked.

A few years ago, under the suggestions of the German surgeons, to whom we owe many improvements in surgery, we began to use plaster of Paris; but this was a step backward, instead of forward. By this method



we cannot get the slightest extension or counter-extension. The limb shortens as much as it is possible for it to do, and you can easily see the reason. If you put the plaster all the way up to the perineum, and endeavor to use that as a point for extension, you will get ulceration. In one case I saw an enormous ulcer as the result of this. If you do not use the perineum as the means of obtaining the extension, you have to use the oblique surface of the thigh and the curvature of the nates. In a small man this amounts really to nothing, and the consequence is, that the plaster rapidly loosens, and you have not the slightest extension or counter-extension. While the plaster method was being used in this hospital, I saw more shortened and more crooked legs than there ever were before, and, besides that, I saw three deaths. Taking it all in all, so far from making progress were we, in adopting this method, that we actually took a retrograde step, and I am happy to say to-day that the practice is now almost entirely abolished. I assure you that you will never use it more than twice in country practice. I speak of it, not in order to advise it, but I am obliged to refer to it, because it was once getting into extensive use.

But let us see what we use now. Look at this patient and you see the limb held closely by adhesive plaster, and fortified by a bandage, and to the foot-piece, which is clear of the malleoli, is attached a weight, acting over a pulley. This method is sometimes called Buck's extension, but it was not his invention any more than mine, nor mine more than any other person's. With this mode we ought not to get above three fourths of an inch of shortening, and I so stated when I first published my book. In this case, you see, there are two cords and weights, one on each side of the foot-piece. This is a device of my assistant house-surgeon, Dr. Munroe, and is designed to prevent rotation outward of the limb, which it does very nicely.

You might suppose that extension would keep the bones from uniting, but this is not at all so. So long as I have treated fractures of the thigh, and it is now nearly forty years, I have never yet met with a case of non-union in my own practice. I have seen such cases in the hands of others, but it has never yet been my misfortune to have a case of the kind of my own, although I have often seen them nine weeks in uniting.

In this second case that I point out now, as you see, a silicate of soda bandage has been used, but it is entirely unnecessary. On this patient we have used a contrivance of Esmarch, to prevent the outward rotation. The leg is settled in a pad, with a broad under-rest, which is fastened to a cross-piece, steadied on a frame, but slides slightly up and down. We have just begun to try it, and cannot, as yet, form a definite opinion of its value.

In this case you see everything that we generally use, and that is called Buck's extension apparatus; but, as I previously remarked, although we are indebted to Dr. Buck for many practical points in the treatment of fractures, and especially of this fracture, the credit of its invention does not belong to him. It may, with most propriety, be called the American plan exclusively. The extension is made by one pulley and weight. Dr. Buck used an upright piece of wood, with a pulley fastened in, and this was fixed to the foot-piece of the bed. The weight may be anything

that is convenient—a stone, a brick, a flat-iron or a bag of shot. ‘‘Instead of the wooden upright that we formerly used, we now simply employ an iron wheel, which is fastened to the bed with screws. The foot-piece to which the cord is attached must be quite broad, so that the adhesive plaster will not press on the malleoli. The plaster is laid only up to the knee, and not on the thigh above, for, if it is, it may do as much mischief as good. Then the plaster is held more firmly in place by a bandage. It may give a quarter of an inch or so, but never entirely. This method was first described, as I have before said, by Dr. Crosby, of Hanover, New Hampshire.

Over the fracture itself we should place four short side-splints, so as to nearly encircle the limb. The best material for this purpose is felt, made of several thicknesses of cotton cloth, secured in place by five or six separate pieces of bandage. We can thus open and inspect the fracture a dozen times a day, if we choose. To prevent eversion, we use a long splint, which will run along the entire length of the body, and hold it in an unchanged position, and I regard this long splint as one of the most essential things in the treatment. Its utility is twofold: *first*, in preventing eversion, and, *secondly*, preventing bending outward at the point of fracture. The small splints are placed inside the long one. This, then, is the model splint, the perfected method. Let us for a moment recapitulate its elements. Extension is made by weight and pulley, and the attachment by adhesive plaster. We have four short splints, a long splint, and the counter-extension is obtained by utilizing the weight of the body, by raising the foot of the bed.

In the plaster-of-Paris method we always used to find that, at the end of a week or two, the dressing had become loose. We had then to open it, and cut out a piece, in order to bind it tighter, and when we did this, it would not lie evenly on the leg; it did not fit, so that we were obliged to take it off entirely, and apply a new one. This was a prodigious labor. In this case my house surgeon has put a limb up in plaster, in order to show you the method. It must go below the ankle, to get extension, and above the pelvis, for counter-extension; but it gets loose in a very short time, and the fact is, that we do not get either the one or the other.

Now, in regard to measuring a limb, I will say a few words: There is no difficulty in getting the length accurately; at any rate, we can get it with certainty up to one or two-eighths. I do not measure from the round edge of the anterior superior spinous process of the ilium, but get my finger under it at the insertion of the tensor vaginae femoris, and press. From this point I measure to the external malleolus.

Dr. Jarvis S. Wight, of Brooklyn, in a paper published in the ARCHIVES OF CLINICAL SURGERY, by a number of measurements made on healthy individuals, attempts to prove that nearly every person has naturally a shorter limb on one side than on the other, and that often, after fracture, we find apparent shortening where there is, in reality, none whatever, the fracture having taken place in the already short limb. This cannot be so, for in nine out of every ten cases of fracture of the femur we do get actual shortening; and how would this happen so constantly if the fracture had occurred in the longer limb?



## ORIGINAL ARTICLES.

## INTERESTING AND INSTRUCTIVE CASES IN SURGERY.

From the Case-Book of the late J. S. THEBAUD, M. D., Surgeon to St. Vincent's Hospital, Colored Home, etc.

## EXCISION OF THE VEINS OF THE SPERMATIC CORD FOR CIRSOCELE.

C., aged 23 years, the son of a physician, consulted me during the summer of 1855 for an enormous cirsocele. The veins of the cord had been enlarged, and gradually increasing for thirteen years. I found the patient of a melancholy disposition, with great depression of spirits, and exceedingly unhappy; he was suffering with nocturnal emissions, occurring three or four nights in succession, and often twice and three times of the same night. His memory was failing, and he was losing all interest in his business, while becoming daily more reduced; he also suffered much with chronic rheumatism. He had been under the care of several physicians, but had obtained no relief. I at once concluded there was no further room for palliative treatment, and, without hesitation, proposed recourse to a surgical operation.

I saw no more of my patient until the winter of 1856, when he again called at my office, to consult me in regard to his case. He had not improved; on the contrary, he was pale and emaciated, and complained more than ever of his emissions, which now occurred at all times; of pain in his back and limbs, excessive debility and despondency. He declared that his memory was now so bad, and that he was so unfit for work that he would abandon his situation, unless relieved of the trouble which tormented him so much; he had become desperate, and was now willing to submit to any operation which I might propose, regardless of the risks attending it, more especially as he had been in the interval mostly engaged in pursuing different varieties of treatment, suggested by friends and professional men, without the slightest relief.

On exposing the parts, the scrotum had nearly doubled in size since I had last seen it, extending to the middle of the thigh, and supported by a large suspensory bandage of his own contrivance. The right testicle was crowded up against the external abdominal ring, while the left, which was on the side of the cirsocele, was soft and flabby, and almost imperceptible among the numerous convolutions of veins by which it was surrounded.

I again proposed an operation, and advised in this case the complete excision of the veins, after ligating them below the ring. He willingly consented to the operation, though I warned him of its dangers, of which he was already fully aware, from the fact that two of his friends, suffering from the same affection, had been operated

upon by eminent surgeons of this city, one by excision, losing his life; the other by subcutaneous ligation, where violent hemorrhage ensued during the operation, preventing its completion.

I advised him to write to his father, who lived some distance in the country, to obtain his views, and, if in favor of the course proposed, to be present at the operation. I also referred him to my friends, Drs. Van Buren and Metcalfe, who kindly examined the case, and did not hesitate to recommend the same operation.

Accordingly, on the 6th January, 1857, assisted by Drs. Van Buren, Metcalfe and Thomas, and in the presence of the patient's father, also Drs. Quimby, Stiger, etc., and being placed under the influence of ether by Dr. Thomas, an incision was made through the skin and cellular tissue, extending from just below the external abdominal ring to near the lower extremity of the scrotum. By careful dissection, the veins were separated from the vas deferens and spermatic artery, and a strong double ligature was passed about the entire bunch, and tightened as high in the upper portion of the wound as possible. The veins were now cut through, with a pair of scissors, just below the ligature, and the mass carefully dissected down beside the spermatic artery and vas deferens to the testicle, around which they were closely cut off in the same manner with the scissors, ligatures being applied to each bleeding orifice. Four ligatures were thus placed on the lower openings, and two or three small arterial vessels continuing to ooze in different parts of the wound, they were also tied.

The testicle was carefully examined, and, with the exception of the atrophy and softening from long-continued pressure, was pronounced healthy, and returned to its bed. The vas deferens and spermatic artery were carefully respected, and, though cleanly dissected out, were uninjured. The wound was closed in the usual way, with stitches and strips of adhesive plaster; the double ligature emerging through the upper corner of the wound, the remaining ones through the lower corner. Cold water dressings were applied, and the patient left till the following day.

*January 7th.*—Pulse 100; inability to pass water, but patient tolerably bright. Catheter used three times in twenty-four hours.

*January 8th.*—Pulse 130; countenance anxious; considerable pain and tenderness along the spermatic cord and around the inguinal region. The scrotum was much swollen, and the same inability existed to urinate. Marked phlebitis and circumscribed peritonitis were present. The catheter was used as before, cold water dressings continued, and opium given, particularly at night.

*January 9th.*—Symptoms slightly aggravated; pulse 135.

*January 10th.*—Patient about the same; pulse 130.

*January 11th.*—Slight amelioration in the symptoms.

*January 12th.*—Pain and swelling subsiding.

*January 15th.*—Much improvement; the patient, for the first time, passes water alone; relishes his food.

*January 22d.*—The lower ligatures have all come away.



*Janary 25th.*—An abscess has formed in the scrotum, for which an incision about an inch in length was made, external to the incision made during the operation, which has entirely healed, with the exception of a small spot, allowing the exit of the double ligature.

*February 9th.*—Now thirty-four days after the operation; the double ligature has come away, firm traction having been made daily for eight days past, and continued traction by means of the adhesive plaster roller during the previous forty-eight hours. The scrotum has resumed its natural size, form, and appearance.

*February 10th.*—The patient was allowed to rise, but, on assuming the erect position, the scrotum, in a few seconds, became suffused with blood, then purple and actually black. The patient complained of a fulness and unpleasant sensation, which entirely subsided, together with the black color, in resuming the horizontal position. The veins of the scrotum had taken upon themselves the task of returning the blood to the body, and, in the course of a few weeks, the circulation having become equalized, this condition of things entirely subsided.

*July, 1859.*—I have seen Mr. C., who tells me that since the operation he has not suffered in any way from the scrotum or veins; that no enlargement has recurred, the emissions have long since disappeared, as well as the pains and low spirits, and that he is now an active man, enjoying perfect health.

#### SUPERNUMERARY THUMB ON ADULT.

P. M. presented himself to me in December, 1851, with a well-developed supernumerary thumb on the right hand. On examination, it was found to have a carpal, meta-carpal bones and phalanges, with a good extensor and flexor muscles, capable of considerable and independent motion; but, being a laboring man, and this interfering a good deal in handling a shovel, I advised its removal, to which he freely consented, and, assisted by Mr. Gandolfe, cut down on each side to the carpal bone, and, to avoid entering entirely into the wrist-joint, divided this with Liston's forceps, leaving a portion of it behind; the skin was brought over the remaining portion of the carpal bone, and all united by first intention in a few days. The motion of the other thumb of the same hand remained good, and the patient was fully satisfied with its riddance.

I saw him some time after, in the enjoyment of good health.

## HOSPITAL RECORDS.

## ST. VINCENT'S HOSPITAL, NEW YORK.

Reported by ABRAHAM G. WENDELL, M. D., House Surgeon.

## POST-FASCIAL ABSCESS ORIGINATING IN THE ILIAC FOSSA.

H. T., aged 28, —married, —born in Ireland,—letter-carrier. Admitted into the hospital August 21st, 1877. Family history is good. No history of syphilis. Previous to this disease he had always been a robust man, of temperate habits and of great energy.

Four weeks before entering this hospital, while delivering letters, during a very stormy evening, he slipped and hurt his foot, which caused him considerable pain for a while, but he was able to proceed, and finish his duties for the evening.

On arriving home his foot was tender, and, as he thinks, somewhat swollen; he applied cold water, and in the morning was able to reassume his duties, although with some discomfort in the foot. The next evening, after getting home, he renewed the cold applications, and the second morning found him as well as ever, and his foot free from any trouble. Five days after this accident he felt some pain in the left groin, was feverish, and had a slight chill; he remained at home, and sent for a physician who, on examination, found the lymphatics of the left inguinal region enlarged and painful, some fever, etc. He ordered *potassii iodidi*, and the parts to be painted with the tincture of iodine. Since then his symptoms have grown worse; he has had excruciating pain in the left iliac region, his fever continued, he lost appetite and flesh, he could not sleep, and felt very much depressed. Since he called the first physician he has had six others to see him, whose opinions were divided, some attributing the whole trouble to a bubo following some venereal disease, which they thought he denied; some thinking it was a case of *morbus coxarius*. At the time of admittance his general condition was as follows: He was emaciated and weak, his pulse was rapid and feeble, and his countenance expressive of the most intense suffering, his tongue furred and bowels costive. Temperature  $100\frac{1}{4}^{\circ}$ .

He complained of severe pain in his left groin, and was unable to straighten out the thigh, which looked considerably emaciated in comparison with the sound one, and measured  $17\frac{1}{2}$  inches, while the other was 19 inches in circumference; he lay most of the time on his back; his sleep was very poor, as, during the night, his pains increased; he had no appetite whatsoever, and felt very thirsty. On careful examination of his groin, a deep swelling, tender and very painful to pressure, was felt; this swelling was situated behind the outer half of Poupart's ligament, and, extending upward, occupied the iliac fossa; the crest of the ilium, on both sides,



afforded a wide difference: while on the right side it could be easily grasped, and the fingers could be buried in the fossa, on the left it was impossible to do so, nor could they embrace the crest of the ilium, nor the anterior superior spinous process. The swelling was not discernible below Poupart's ligament. The skin covering the swelling, as well as the sub-jacent tissues, were supple and unadherent, and there was neither heat nor redness. Fluctuation was not perceptible at any point. The thigh was kept flexed at an angle of about  $140^{\circ}$  with the trunk; extension was impossible, as it caused a great deal of pain, and, when tried, it seemed as if the whole pelvis moved with it. On certain movements of the body he complains of pricking sensations in the leg. The abdomen was tympanitic, and its muscles kept in a state of rigidity. There was no tenderness or pressure along the spine. Rotation of the thigh was perfect; there was also no pain on pressing the head of the bone against the acetabulum.

My diagnosis was iliac abscess, and was confirmed by Dr. Little, when he saw the patient during his daily visit. I ordered warm flaxseed poultices to be kept constantly applied over the parts; milk-punch, concentrated beef-tea, and ten drops of Magendie's solution, hypodermically.

*August 22d.*—Patient has passed a good night under the influence of the opiate; complains of less pain, has been able to take during the day his milk-punch and beef-tea, and as his bowels had not moved for four days, oleum ricini, one ounce, was ordered, aided, if there was any necessity, by an enema; Magendie's solution of morphia, ten drops, was given hypodermically.

*August 26th.*—Since last note there has been no change in the condition of the swelling; the patient, under the influence of ten drops of sol. of Magendie's in the morning and evening, is kept without pain and quite comfortable. To-day Dr. Little made an exploratory puncture of the abscess with the fine needle of Dieulafoy's aspirator, and drew off about one ounce of thick, creamy pus, without any fetor: as the object was to confirm still further, by this procedure, the diagnosis already made, the needle was withdrawn, and the poultices ordered to be continued. During the night the patient felt uneasy, was very restless, and his pulse was  $108^{\circ}$ , his temperature  $102^{\circ}$ .

*August 27th.*—The pulse to-day is 110, and temperature  $102^{\circ}$ ; he had chilly sensations this morning. His tongue is furred, and somewhat dried at the middle. The bowels being constipated, a movement was obtained by oleum ricini, one ounce, aided by an enema.

*August 28th.*—Patient feels better this morning, has been able to sleep, and does not complain of pain. Pulse 105, temperature  $100\frac{1}{2}^{\circ}$ .

*September 6th.*—Since last note the temperature and pulse have been about the same. Pain has been relieved by the hypodermic administration of Magendie's solution, ten drops, morning and evening. His respiration has become quite thoracic, and he breathes rapidly. The hot flaxseed poultices have been kept constantly applied since he entered the hospital. On examining the iliac region, we find the swelling more prominent and more easily defined, although, by percussion, its area is found not to have

increased any. The skin still preserves its natural color and its suppleness, and there is no discoloration to be noticed. The patient was etherized, and an incision of about two inches was made, at about three quarters of an inch below the middle of the outer half of Poupart's ligament. This incision extended through the skin, subcutaneous tissue, and fascia lata. The first stroke of the scalpel over this last tissue was followed by an escape of pus, whereupon the track was enlarged, and a free outlet afforded for the contents of the abscess, which was thick pus, without any odor and about fourteen ounces. Having divided a small vessel, this was tied, and the hemorrhage, which was very slight, stopped. A tent smeared with carbolic acid oil was introduced into the wound, which was covered over with a compress, saturated with carbolic acid solution, and a bandage.

The patient rallied from the effects of the operation, feeling very much relieved, but as he had still some pain, Magendie's solution, ten drops, was given hypodermically.

*September 7th.*—He has slept perfectly well last night; the relief has been more decided, as there has been a continued free discharge of pus, and the limb can be moved with more ease.

Temperature 102°, pulse 120. One of Nelaton's soft rubber catheters was introduced well into the cavity of the abscess, and this thoroughly washed out with a tepid solution of acidum carbolicum, by means of a Van Buren's bag syringe, introducing the nozzle of this into the free end of the catheter. A new tent was introduced, and compresses, saturated in a solution of acidum carbolicum, were ordered to be applied constantly over the wound.

*September 8th.*—To-day the cavity was washed out in the same manner as yesterday; the discharge has been exceedingly small, and the introduction of the tent was discontinued.

He can move the thigh with greater freedom. He does not wish to take any more anodynes, as he says he can stand the little discomfort he feels at present without them. Pulse 100, temperature 101½°. As the bowels have not moved, and he feels some discomfort from this, oleum ricini, one ounce, was ordered.

*September 9th.*—Pulse 98, temperature 99¼°. Appetite improving; pain at the wound: he can extend the leg almost to its normal position. The wound looks healthy, and the discharge has been insignificant. The dressing to-day was the same as the previous ones.

*September 10th.*—There is absolutely no discharge from the wound, which looks healthy and granulating at the sides. The ligature of the vessels tied during the operation came off while being dressed. To-day we did not wash the cavity, but applied the same dressing. Pulse 87, temperature 99.

*September 15th.* There has been no discharge from the abscess since last note. The patient has, as he says, "a voracious appetite." His digestion is good. The motions of his leg are perfect and natural, although he says it feels a little stiff. The healing process in the wound has advanced rapidly, and to-day the edges were approximated by means



of adhesive plaster, and a spica bandage put over all. As there were some signs of cinchonism, the quiniæ sulphas was ordered to be stopped, and tinctura ferri chloridi, twenty drops, to be given thrice daily.

*September 19th.*—The straps were removed to-day, and the wound found to have healed nearly to its whole extent; and as at the inner corner of it there were some exuberant granulations, this was touched lightly with the solid stick of argenti nitras, after which the whole was strapped again. The patient having asked permission to get up from bed, this was granted.

*October 1st.*—A steady, progressive improvement in the patient's general health has taken place since last note. Five days ago we removed the straps applied on the 19th ult., and found the whole extent of the wound had closed. The emaciation of the thigh is much less, and has regained its plumpness to a great extent. The swelling in the iliac fossa has disappeared to a considerable degree, yet some degree of fulness still remains. His appetite is excellent, and his spirits better. To-day he was discharged, at his own request.

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## PERISCOPE.

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### COLLABORATORS.

*Dermatology.*—HENRY G. PIERCE, M. D., Professor of Dermatology in the University of New York.

*Diseases of the Nervous System.*—EDWARD C. SEGUIN, M. D., Professor of Diseases of the Nervous System in the College of Physicians and Surgeons, New York.

*Diseases of Women and Children.*—FRANK P. FOSTER, M.D., Gynecologist to the New York Hospital Out-door Department.

*General Surgery.*—EDWARD J. BIRMINGHAM, M.D., Surgeon to Bellevue Hospital Out-door Department.

*Genito-Urinary Diseases and Syphilis.*—ROBERT W. TAYLOR, M.D., Professor of Dermatology in the University of Vermont.

*Ophthalmology and Otology.*—S. B. ST. JOHN, M. D., Assistant Surgeon to the New York Eye and Ear Infirmary.

*Orthopedic Surgery.*—NEWTON M. SHAFFER, M.D., Surgeon to the New York Orthopedic Dispensary and Hospital.

*Practical Medicine.*—E. DARWIN HUDSON, JR., M.D., Professor of Practice of Medicine, Woman's Medical College, New York.

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## ON A CASE OF PSORIASIS TREATED BY CHRYSOPHANIC ACID.

BY

J. C. OGILVIE WILL, M. D. (*The Medical Press and Circular*, Aug. 8th, 1877.)

WILL reports a case of general psoriasis in a boy aged 14: "On April 28th chrysophanic ointment, fifteen grains to an ounce of hot lard, was prescribed, directions being given that it should be well rubbed into the affected parts night and morning. Three days afterward the scales were peeling off freely, and the itch has ceased. On May 3d the scaly patches had completely disappeared from the greater portion of the surfaces involved, and the infiltrated cutis was fast resuming its normal consistence. On May 7 the whole body was perfectly free from scales, and was dyed

of a dusky, purple color, while the spots where the disease had existed presented a smooth, white appearance, forming a marked contrast to the surrounding discolored skin. On May 10th the epidermis covering the unaffected portions of the body was found to be exfoliating, the whole surface being covered by fine furturaceous scales; but, after the use of warm baths, the skin speedily became perfectly normal in appearance, no trace of disease remaining."

## PSORIASIS TREATED WITH PHOSPHORUS "PERLES" AND CHRYSOPHANIC ACID.

BY

BALMANNO SQUIRE. (*The British Medical Journal*, Nov. 3, 1877).

SQUIRE again calls attention to the efficacy of chrysophanic acid as a local application in psoriasis, and adds that the internal use of phosphorus (following Broadbent's suggestion) will also materially modify for the better the aspect of the eruption. He is in the habit of prescribing the French "perles" (capsules), in doses of one-thirtieth of a grain, three times a day. He states further that, after a little use of the drug, more or less tolerance seems to be established, and that the dose may, in some cases, be increased fourfold, and that one-eighth of a grain may be quite safely given, three times a day. [Noting the above, we can hardly pass it without comment, as we have had considerable experience in the employment of the drugs referred to. Chrysophanic acid is, of all external applications in psoriasis, the most efficient with which we are acquainted, as it will remove the patches much more rapidly than any of the tars, carbolic acid, creosote, acetic acid, mercurial ointments, iodine, sapo viridis, etc. The pure acid is practically unobtainable at the present time in this country, but the impure Goa powder (from which it is derived) may be had at most first-class pharmacies. Vaseline appears to be the best excipient for its employment. The strength should be about one part of Goa powder to twenty of ointment, and the mixture is best effected by dissolving the Goa in hot vaseline, from which most of it is again precipitated on cooling in a state of minute subdivision and equal diffusion. It should be applied once or twice a day, according to the degree of reaction produced. In delicate skins it excites a moderate but quite bearable degree of pain. The acid is neither caustic nor poisonous, and in doses of ten to fifteen grains proves an efficient cathartic, and less objectionable, in some respects, than many of the purgatives in more common use. Chrysophanic acid is useful for many purposes, internal and external, and appears, under ordinary circumstances, to be harmless. As much, however, cannot be said of phosphorus, which Squire recommends so confidently. We have employed it, to a greater or less extent, since Eames, in 1872 (*Dub. Jour. Med.*, etc.), extolled its virtues in certain cutaneous diseases. Our early results were not altogether satisfactory, as on some occasions it appeared to exert a remarkable curative influence, in other cases it seemed inert in the largest doses that we dared give, and



in still others it promptly manifested its poisonous effects. In other words, we found it uncertain and unreliable. The preparations employed were simple solutions of phosphorus in almond oil, "Thompson's solution," and various sugar-coated pills. During the present year we have again employed phosphorus in about twenty cases, in hospital and private practice. The preparations used were the Tinct. of phos. (homœopathic, Phosph. gr j. alcoh. absol. gutt. M.) and Squibb's solution (Phos. gr j., Ol morrhue gr. xexix). The former may be conveniently administered, if in small doses, for children, by dropping on peppermint lozenges; if in larger doses, for adults, in distilled or boiled water. Squibb's solution may be given on sugar, or, better, in capsules, with enough cod liver oil added to fill them, the object being to prevent, as far as possible, the access of air, and consequent premature oxidation of the phosphorus. Using these preparations in tri-daily doses, containing from one-hundredth to one-twentieth of a grain of phosphorus, we found that almost invariably a very considerable degree of pruritus and cutaneous irritation occurred, followed, in about one-half the cases, by decided improvement in the eruption. In the others the amelioration was not greater than might have been expected from arsenic given in the usual manner for the same length of time. In males, careful inquiry was made as to aphrodisiac effects. In those taking doses not exceeding one-twenty-fifth of a grain no effect was apparent. In one case (age 50, dose one-twentieth of a grain, tri-daily) morning erections became more frequent. Neither gastric nor hepatic disturbance occurred in any of the cases, but three females in Charity Hospital (doses one-fiftieth to one-thirty-third) complained of pain in the left side. Upon examination we found in two of them distinct pleuritic friction, without present or subsequent serous effusion. In the third case, not personally seen at the time, the same condition was noted by Dr. Cladek, the assistant physician at the hospital. In June last we prescribed twenty doses of phosphorus for a patient with psoriasis, who did not again call until the following October. He stated that as the medicine had affected the eruption favorably, he had had the prescription several times renewed. His skin was now in good condition, but he was troubled with frequent and profuse urination. On examination his urine was found to saccharine. Phosphorus certainly exerts a decided influence on psoriasis, as on several other cutaneous affections, when given with proper safeguards. These are: a reliable preparation and a moderate dose. Squire's dose of three-eighths of a grain daily, we believe to be unsafe, and if ill effects have not followed it, it is probable that the activity of a portion of the phosphorus has been impaired by oxidation.

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### COPAIBA AS A DIURETIC.

BY

DR. HORACE S. HOWELL (*Lancet*, Oct. 13th, 1877).

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In the treatment of the late Mlle. Tietjens, Drs. Spencer Wells and Howell, after vigorous efforts to produce diuresis by various remedies, without success, found excellent results from the resin of copaiba, in 10-grain doses.

E. D. H., JR.

## ABOUT BOOKS.

*A Manual of Physical Diagnosis. By Francis Delafield, M. D., and Charles F. Stillman, M. D. New York: Printed for the Authors.*

ON the first page of this work is an admirably and beautifully prepared colored plate, exhibiting the topography of the thoracic and upper abdominal organs. Rather than a plate, however, we should have said *series* of plates, one folding over the other, for such in reality it is. On the exterior is a representation of the ribs and sternum, and in the interspaces, where the costal muscles have been cut away, we can distinctly see the lungs situated beneath, of proper form, and in the normal position. We now remove the chest wall, by lifting off the first cover, which is pasted on a hinge above the drawing, and this discloses a perfect view of the exact size, shape and relative position of the pulmonary organs, and the vessels at the root of the neck. Now we throw aside a lung on each side, and expose to view the posterior walls of the thorax, and, in its accustomed situation, the pericardium. Throwing aside, once more, another fold, we have an accurate sketch of the heart, with the pericardium around it, showing the exact location and relative position of all its cavities, and of all the large vessels at its base. Now, replacing the various folds, and turning over the entire page, we have a skilfully executed drawing of the position of the viscera, as seen from the back.

From this inadequate description, the reader may form an idea of the novelty and utility of the design. It brings before the eye, in a manner beyond the power of ordinary plates and descriptions, the exact position, size and relations of the important organs it delineates. It impresses these facts more vividly upon the mind than anything else could, except their study on the cadaver itself.

In the reading matter, we find the most thorough, condensed, clear, and concise exposition of the facts of physical diagnosis that can be found in any work now published. It would seem at first sight, on reading the text, that completeness had been sacrificed for the sake of brevity and condensation, but this is not the case, as every necessary detail is given, even as regards practical hints in making use of the various methods of examination. Indeed, there is not a superfluous word; but, at the same time, there is great simplicity and completeness. Taking everything into consideration, there is no work with which we are acquainted that combines so many excellencies in so small a compass. It is the ideal work both for the student and practitioner, and we cannot commend it too highly to our readers. We predict for it an extensive circulation wherever its merits become known, and we may well congratulate the authors on the success of their achievement.



# THE HOSPITAL GAZETTE

AND

## ARCHIVES OF CLINICAL SURGERY,

A Semi-Monthly Journal of Medicine and Surgery,

EDITED BY

Edward J. Bermingham, M. D., and Frederick A. Lyons, M. D.

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### LECTURES.

#### LECTURES ON PARALYSIS AND CONVULSIONS, AS EFFECTS OF ORGANIC DISEASE OF THE BRAIN.

Delivered at Bellevue Hospital Medical College,

BY

C. E. BROWN-SEQUARD, M. D., Etc.,

#### LECTURE II.

GENTLEMEN:—In the last lecture, as you will remember, I went into general facts, and spoke of a good many things that are out of the course I intended to follow. Although I have taken up some time in bringing them forward, I must return to them to-day, as there are facts and views that I shall have to mention, which, for their comprehension, require a knowledge of the information I have now to impart. The theories that are now generally admitted as regards the production of paralysis and convulsions, I consider absolutely wrong from beginning to end. Now, as I have taken away the old opinions, I shall, on the other hand, have to present views in order to replace them, and this will require that I

must ask a great deal of attention on your part, as they imply a full comprehension of a good many facts which are very difficult of explanation, and a good many theories, some of which are already explained, while others will need much demonstration. I shall endeavor to do my best to make these things clear in a measure, if not completely.

The first point, then, is this: that the old theories as regards the action of the will, in the production of movements, are extremely obscure, and I cannot understand how it is that they have been admitted for an instant by many others as well as by myself. Since the year 1861, when I first began to advance my new views in lectures, I have met many able practitioners and accomplished teachers, who have told me that they have every moment met with facts that were difficult, or even impossible, of explanation by the old views. They, however, did not attempt to understand them completely, or to advance new explanations, but let them pass, thinking that, perhaps, sooner or later, some facts might be discovered that would explain them. Now, as soon as there is a single fact which is in direct opposition to a theory, that theory should be at once put aside, or, at least, considered very doubtful. I think we all of us err greatly in continuing to accept for a long time what should be set aside at once, when it is proved to be inconsistent with facts. Democrats as we are, liberal in some matters as we are, we are often unwilling to move in the right direction, but too apt to be conservative in matters where we ought to change.

There are facts that overthrow even the very elements of the old theories, and show them, *a priori*, to be wrong. We know that slight pressure exerted on the brain cannot be a sufficient cause for paralysis. In a great many cases, immense pressure does not produce the least paralysis, while in others, a great many phenomena may be caused by an apparently slight pressure. How can these things be reconciled?

Within a few years facts have been brought forward to show that there are distinct centres in the brain presiding over certain muscular movements. The experiments performed to prove these ideas consist in galvanizing certain parts of the brain, when movements are excited. Now is it a proof that these movements depend upon putting into activity the will-power presiding over them? Certainly not. By tickling the foot certain movements may be produced in the face, but who believes that the centre of will for these movements lies in the sole of the foot. The reasoning in one case is equally as good as that in the other, and so we might bring many more analogous instances. Take a case of intestinal worms. There is irritation, and many forms of convulsions and nervous phenomena take place; but are we to conclude from this that the centre of will for these movements lies in the mucous membrane of the bowels? It would be just as rational to draw this inference as it is for Ferrier, Fritsch and Hitzig, and others, to draw the conclusions which they have done from their experiments, as regards these facts. Now let us analyze for a moment the views of Charcot. He published some cases in which, by the destruction of one or two convolutions of the brain, paralysis or convulsions was produced in certain definite parts. These views would be subject to the same criticism as I made a moment ago.



Now there are many other facts which are serious obstacles in the way of the second conclusion. Looking at the brain on its lateral aspect, we have the fissure of Rolando coming downward from the median line above toward the front. In front of it lies the ascending frontal convolution. This, according to the theory of those who attempt to localize the centres of will, is the centre of movement for the arm of the opposite side of the body. The convolution behind this, the ascending parietal, is, in a measure, a part of that same centre. In the neighborhood of the median line, and a little posterior, is a centre said to be that of movement of the leg. Now Charcot himself published, in a French journal, with a number of admirable woodcuts, a case in which destruction of the whole of this latter portion produced paralysis of the arm instead of the leg, and consequently this would show that the centre of movement for the arm was located farther backward than in other cases. In another place we find the report of a case in which there was disease of this region, with destruction only of that portion in which was situated the centre for the arm, but there was paralysis of both arm and leg of the opposite side. Everything behind the fissure of Rolando was destroyed, and, in such a case, we ought to have paralysis of the leg, but not of the arm; but there was complete hemiplegia. Now, if you look upon a great many cases of destruction of the convolutions, you will find that a great deal of tissue may be destroyed without paralysis or convulsions occurring. Now, on the other hand, destruction of a very limited portion of brain tissue will often produce paralysis of the arm or leg, but the location of destruction is not fixed. In reality all the facts are clear that these conclusions are absolutely wrong.

But it is not only there that the theory, that one-half the brain serves to supply the other of the body, fails. If you follow the fibres from the surface, you find many crossing from one side of the brain to the other, from the right to the left side, and *vice versa*. By irritating the brain we sometimes get convulsions on the same side, and sometimes on the opposite, conveyed by irritation. This ground is well established by Charcot himself. If a degeneration of nerve fibres takes place on one side, it is propagated downward, across the medulla oblongata to the other side of the cord, out to the nerves, and even to the muscles. This seems the most plausible explanation. If there is disease of the convolutions, it is propagated from the brain to the nerves, and it seems clear that we have to deal with degeneration following down the course of the nerve fibres. This is probably what takes place in all cases of motor trouble. If you study the circumstances in which such cases appear, and the details of all the facts concerning them, you will find many reasons to sustain the conclusions I have drawn from them.

Professors Charcot and Vulpian, of Paris, and Westphal, of Berlin, all have found cases in which disease of the convolutions was followed by a degeneration of fibres. There is an influence exerted on the nutrition of the fibres at the base of the brain, and on the nerves of the opposite side, without direct propagation of the original morbid process. There are fibres going in a continuous channel from the convolutions to the nerves. We must, therefore, admit that a lesion in the surface of the brain can

produce a change of nutrition at a distance. We see this plainly exemplified in the production of tetanus. An injury to a nerve in the sole of the foot, or any other portion of the body, produces a change in nutrition of the spinal cord, without a direct transmission of the lesion along the nerve.

We may find more reasons still against the old views. Where there is disease of the right side of the brain, secondary changes may occur in the whole of the anterior pyramids. At first sight this may seem in harmony with the old view, but the fibres of the anterior pyramids pass through in such a way to the spinal columns, that most of the fibres are in the lateral columns instead of the anterior columns, as they ought to be. Now, where does the secondary degeneration occur? Only in a small part of the lateral columns, and that in the posterior portion; there, only, the secondary degeneration exists. Now, we all of us know very well that this posterior part of the lateral column does not contain any voluntary motor fibres. Here, then, we are evidently out of the track. If the theories were right, those parts that should be affected would be the anterior portions. There is, therefore, in this study of the secondary changes, a great point in discord with the old theories.

Now, there are still further decisive reasons relative to the action of the surface of the brain. If we apply any other than galvanic stimulus or irritation to the cerebral surface, we will never find the least trace of movements. I instituted a series of experiments, and tried by all the other known methods, such as the various mechanical, chemical and cutting irritants, but failed to produce the least trace of movements such as those described. Burning the surface of the convolutions produces facts of the most interesting nature. If we cauterize with a red or white hot iron the surface of the brain on one side, we find occurring a most important fact relative to the symptoms shown in brain disease. In one instance especially such observations were noted. The animal was a dog, whose brain had been laid bare, and the surface of the middle lobe cauterized. When the animal came from under the influence of the anæsthetic, whose effects had lasted but a few moments, he exhibited some very curious phenomena. My friend, Professor Hyen, who has made special and exhaustive studies on meningo-spinal inflammations, and who was present during the experiment, was of the opinion, after considering the symptoms, that there was inflammation of both the spinal cord and its meninges. I have seen other dogs, under the same conditions, show the same phenomena. An autopsy showed that there was no inflammation, and I knew that it was not likely that such a condition existed; but even if it were so, it would prove that irritation of the brain could produce a change of nutrition at a distance. But another thing took place, although the dog had all the symptoms that are ordinarily evidences of inflammation of the cord and its meninges. He had extreme stiffness of the posterior extremities, turned over on his side, with contraction of the muscles, and extreme sensibility of the skin. At times he had jerks and convulsive movements. Now, in this case, what takes place is what we see in many cases of brain disease. The jerkings and



convulsive movements occur without inflammation. There is some peculiar condition of the cells produced. Here is a convulsive disorder brought on with great rapidity in a healthy animal. It cannot be an inflammation, as the rapidity is too great, and it could not, in any degree, be due to the anæsthesia, as the power of feeling, and the consciousness of the animal, were completely restored in a very short space of time. It is a change in the nutrition and vital action of the cells in the spinal cord, and, especially, in the lumbar enlargement. It occurs from the irritation in the surface of the brain.

There is an immense power produced by irritation, and this may be readily conceived when you reflect that the surface of the brain is placed in connection with every organ of the body, so that it may have its circulation or nutrition altered. The brain produces symptoms through an irritation caused by disease or injury to any part of its tissue, starting at the particular part involved, and going to a distance, either in the brain or spinal cord, and producing variety in the effects, according to the nature of the cells attacked by the irritation. Aphasia, anæsthesia and any other loss of the various functions of the brain, are produced in the same way. All of those cases in which a function is lost in the brain itself, or any other organ of the body, depend on an irritation starting from one place, and acting on the other part, and not on the destruction of a centre.

Suppose you have a case of disease encroaching on one of the origins of the optic nerves. You know that they are special nerves in this, that they have a union of fibres in the middle of their course, forming what is known as the optic chiasm. According to the theory of Dr. Wollaston, of London, the optic band is composed of two parts, one going to one eye and one to the other. The corresponding halves of each eye are supplied by fibres from the same side. If the left optic band should be diseased, there would be hemiopia or loss of sight on one side of each eye, on the external side of one eye, and the internal side of the other. This is what the theory would predict, and does occur in some cases. But, continuing to review what ought to take place, we find that if the disease exists only in a small part of the left side of the band, we ought to find that then only one half of one eye will be affected. There are such cases. If it is the other part that is affected, then it is only one half in the other eye which should be affected. There are, also, facts of that kind; so that there are three kinds of facts which seem to support the theory. But, on the other hand, there are clear cases against it. There are a great many facts which show that a disease in one half of the brain will produce complete loss of sight of the two halves of one eye, either on the same side or on the opposite side, or the two halves of both eyes. Therefore, there are three series of facts, and one only would be enough, which demonstrate that the theory ought to be rejected. One half of the brain is quite sufficient for use in the production of sight.

I know that in certain of these cases, as my former assistant, Dr. Hughlings Jackson, has chiefly contributed to establish, there can be an alteration of nutrition produced by contiguity, and the amaurosis is secondary. There may be a neuritis of the retina, and the loss of sight

come on as a secondary result ; but loss of sight sometimes occurs without neuritis being present. The most conclusive evidence, however, is that in seven cases of disease of the optic chiasm, with entire destruction of the brain tissue in the neighborhood, there was no amaurosis at all. These facts certainly give the death blow to the theory that one side of the brain serves one half of the body, and the other the remaining side. One-half of the brain is amply sufficient for both sides. How is it that there is amaurosis without an optic neuritis ? The answer is simple, and applies to every other nervous structure besides the optic band. Disease of the optic band, as well as of the tissue of the brain, or any other nervous tissue, can produce just what galvanism of the par vagum produces on the heart. You all know very well that by galvanizing this nerve you can produce complete arrest of the activity of the heart. This is a passive action, if we may use the term, and if you cease with the galvanization, the action of the organ may be restored. A phenomenon of this kind explains everything that produces a loss of function in every part beyond the origin of the nerve implicated. Those parts that do not contain the nerve cells produce the loss of function, not because the tissue is destroyed, but because an irritation is started.

But you will say, how is it that there is such a variety of effects produced in the eye ? The answer is evident, if you follow the phenomena produced by the irritation of certain nerves. For example, if you follow the irritation produced by worms in the intestines, you may get hemiopia and other affections of the eye ; paralysis of one limb, or of two limbs, of the face, or tongue, or, in fact, of any part of the body. If there is such a vast variety of effects produced when the nerve fibres irritated are at a distance, why is the brain not able to act within itself as well as elsewhere ? If we tie the hilus of the supra-renal capsule of an animal, and thus irritate the vessels and nerves, we will stop the heart's action, and the animal will soon die, always within nine days ; while, if we take away a much more important organ, as the kidney, it may live very much longer.

All cases in which there is loss of function, as deafness, loss of vision, loss of action of the muscles, loss of memory, of mental activity, of speech, etc., must be explained by admitting that it is not due to disease in a particular locality, but to an irritation transmitted from one place to another. The parts are endowed with the power of propagating an irritation from place to place. Suppose a disease exists in the cerebellum producing amaurosis. Nobody has dreamt of locating the sense of sight in that organ. There are such cases, where the sight is lost in one or both eyes, on the same or on the opposite side to the disease. An action at a distance undoubtedly takes place. Experiments performed on animals confirm these results. In some cases sight is lost by division of the restiform bodies. In most cases the results are produced by irritation at a distance, exciting a restraining or inhibiting effect. There are some objections to be made here, but I will keep them for another lecture, where they will be more in place.

Now as regards convulsions. Convulsions appear from a mechanism



different from that which produces paralysis. Convulsions do not always come on only when there is a disease on the surface of the brain, over the supposed centres of motion, for we can produce convulsions by irritating parts that do not contain supposed motor centres. Convulsions and paralysis both may appear, no matter in what part, either the irritation or disease. Take, for instance, disease in the optic thalami, which have nothing to do with voluntary movements. This function is commonly supposed to depend upon the corpus striatum, or on certain centres in the neighboring convolutions and fibres springing from them, which pass through the corpus striatum. Now, facts prove that disease of the optic thalamus far more frequently produces convulsions than disease of the other lobes, much oftener than disease in the corpus striatum, or other supposed motor ganglia. In comparing these facts, we have clear evidence that there is no connection between the power of producing voluntary movements and convulsions. Still more is this evident in the case of the pons Varolii or meso-cephalon, as it is called by some. Robert Bently Todd, and, then, after him, Nothnagel, believed that it was the centre for epileptic movements. This portion of the brain has certainly a peculiar power under galvanism. It is the only one that produces clonic movements; all other portions produce tonic contractions. These clonic movements are what occur in convulsions. The tonic movements resemble those of voluntary motion. In a dog, in tonic contraction, you see the fore or hind leg raised or pushed out, and held in that position, while excitation of the pons Varolii produces clonic contractions, in which the limb is shaken and jerked about. To conclude from that fact that in that particular spot is located the centre of epilepsy, I cannot at all understand. The fact is, that convulsions have so little to do with it, that they rarely occur when the pons Varolii is diseased. Of eight or ten places in which tumors may be seated, and produce epileptic convulsions, the disease is least often found in this one. There is a place in front of it, irritation of which has produced convulsions on one side; but disease has produced convulsions on the wrong side, according to the theory. There is no rational ground whatever to conclude, because convulsions have occurred, the existence of a centre relative to epilepsy and convulsions.

Now if we are to draw such conclusions, there is a place on the base of the brain which, when irritated, produces phenomena of even a more singular character. This part, when irritated, produces rotatory or circular movements. The man or animal who has this point irritated or diseased will keep up a continual rotation of the body, either going round in a circle, or rotating on the long axis of the body. This very thing occurred to a most eminent scientific man in London. He was suffering from some trouble with the ear, and had nitrate of silver injected into that organ. A short time afterward he commenced to turn round and round in bed, without cessation. Such movements are frequently produced by a mere prick. Now if we are to conclude that a circus movement, or a quick, rotatory movement, depends on irritation of a certain centre; that where a lesion is made to produce a movement, in that place is the centre,---we would have to locate many of these centres in a great

many places. In man as well as in animals these movements are produced, but not in all cases, so are we to conclude that the centre exists in one man and not in another. We must believe that chorea, epilepsy, catalepsy, etc., depend on the propagation of an irritation to certain cells at a distance, which produce the movements. As I said before, these movements are of two kinds: the loss, or production of an activity. The types I have taken, paralysis and convulsions, occur in a loss of function, or a putting into activity those that were at rest. But there is a common element to the two forms. In both cases an irritation starts from the place of the disease. The difference begins in the distant part, and the character of the result depends upon the kind of cell implicated, whether there is loss of function, or an increase or morbid change of normal action.

I pass now to the other part of my subject, and shall begin to enter upon details elucidating certain facts. Let us first place our attention on the anterior lobes of the brain. One-half of these lobes may frequently be destroyed by disease without the manifestation or appearance of paralysis. Now there are portions more posterior, that have been considered as being connected with the memory, by that most eminent man, Carpenter, among others, who grounds his views on experiments which show that the posterior lobes have no action when galvanized, and on the fact that they are more developed in man than in animals, and are developed in proportion to the intelligence. They are, therefore, looked upon as the seat of intellectual activity. The facts relative to the anterior lobes are different. The posterior lobes are certainly the most indifferent parts of the brain. Large as they are, they seem to be less endowed with function, or at least with those functions we know of. There are functions that we do not know of, or are unconscious of; and as we must suppose that, if a function exists, there must be an organ to perform it, it may be that the posterior lobes are the seat of this power.

But to come back to what I was trying to establish. These lobes may be destroyed without causing any difference in the action of the rest of the brain. If we commence destroying the brain little by little, we shall have to destroy a large portion before the activities described by Fritsch and Hitzig will be abrogated. The old experiments of Flourens, consisting of removal of the hemispheres, show that all the activities can go on. This has led me to admit that the real organization of nerve cells and fibres is not such as to correspond with the necessity of the existence of particular centres. The real organization is this: the cells which are employed in performing certain functions, as, for instance, the power of expressing ideas by language, are not situated in one spot, but are scattered all over the brain, so that a great destruction of tissue can take place without the loss of the function. The whole of the third left frontal convolution, including the insula of Riel, that has been regarded as the seat of the power, enabling us to express ideas in speech, may be destroyed without loss of this function. There is, therefore, the absolute necessity to admit that the function is more generally diffused, and belongs to more parts than this particular locality. This is a hypothesis



which is in perfect harmony with all the facts of which we have any knowledge. It may at some future time be overthrown, but at present it is sufficient to explain all phenomena that occur.

The function of moving the right side of the body belongs to cells that are scattered on both sides of the brain, and one side may be sufficient to call into activity both sides of the body. Such is likewise the case with every other function of the brain. As regards the anterior lobes, we know that they can be carried away without important results, if they only contain a portion of the cells necessary to voluntary movements. In point of fact, both the anterior lobes have been entirely destroyed, and no symptoms of paralysis resulted. We cannot, therefore, place these faculties where they have been located. The same thing holds true with regard to the power of expressing ideas by language, of moving the arm, and certain muscles of the face. If we go back further to the middle lobes, we find that they can be destroyed without loss of power. If we take what relates to various other portions of the brain, as regards the power of producing convulsions, we find the same facts to be true.

I have collected one hundred and eighty-seven cases of epilepsy due to tumors, and I am glad to say they were not my own cases, but those of others well described. In three cases only was the disease due to pressure on the corpora striata. These portions have, as I need not tell you again, been considered centres of motion. Due to pressure on the corpus callosum, two cases; anterior lobes, ten; optic thalami, fifteen; posterior lobes, nine; and various other portions, the remainder, one hundred and forty-eight. This shows an immense variety of places in which the disease can be produced.

In most cases in which the membranes of the brain are diseased, you have convulsions, and there you have another argument against there being disease of the centres. This much as regards the meninges. In cases of hemorrhages, in one hundred and seventy cases, in thirty-seven there were convulsions; while they only appear nineteen times in cases of tumors of both corpora striata, and optic thalami in one hundred and fifty-eight cases.

If we take again an examination of various parts of the brain, we find corroborative evidence. In the base convulsions or paralysis come on very rarely from disease of the parts just above the ventricles, if only the white tissue be diseased. Disease in the crura cerebri produces convulsions rarely, but paralysis frequently. This fact likewise militates strongly against the old theories. In six or seven cases, where the crura cerebri were diseased, there was no appearance at all of paralysis or convulsions. In one case paralysis occurred on the same side as disease in the crus.<sup>a</sup>

## LECTURE ON INJURIES OF THE ARM AND FOREARM.

Delivered at the Long Island College Hospital, Brooklyn, N. Y.

BY

JARVIS S. WIGHT, M. D.,

Professor of Surgery and Clinical Surgery.

GENTLEMEN :—To-day I propose to make some practical remarks on injuries of the arm and forearm. And let me say to you that the upper limb is a marvellous piece of mechanism. You know that it is our duty to study this mechanism, and that it is our province to try to repair it, when it is injured and deranged. And it is a fair inference that the better we understand the parts of this mechanism, the better can we repair its injuries. At the outset let me draw your attention to the fact that the humerus has some important points of practical anatomy :

*First.* The unbroken humeri of the same persons may be equal in length, or *they may be unequal in length*. How do we know? In the most certain manner, by comparative measurements of the corresponding bones. And many such measurements enable me to make the following statement, which may be modified by future investigation : The normally developed humeri of the same person often differ in length; they sometimes differ as much as one inch; they frequently differ as much as one-half inch; and the left humerus is more frequently longer than the right. The same law of growth holds good in regard to the humeri, the femora, the clavicles, and other corresponding bones. Hence the comparative measurement of two corresponding bones, if one be broken, does not afford positive evidence that the bone in question is broken. We must look for further evidence.

*Second.* The greater tuberosity of the humerus is found, in its normal condition, directly under the acromion; and this relation will be a guide to determine an abnormal rotation of the humerus, or a displacement of the upper end of this bone.

*Third.* The greater tuberosity and the head of the humerus bear a constant relation to its condyles. A straight line bisecting the arc of the head of the humerus points just back of the internal condyle, about where the ulnar nerve runs; and a straight line bisecting the greater tuberosity of the humerus, from above downward, points toward the radio-humeral articulation, just in front of the external condyle; hence, the condyles of the humerus will be guides to determine the position of the upper end of the unbroken humerus, and they will also be guides to determine any rotary displacement of the lower fragment of a broken humerus, and the acromio-humeral relations will indicate any displacement of the upper fragment.

*Fourth.* The humerus, in its normal condition, rotates through an arc of about 90°, and as there is no ligament in the humero-scapular



joint—like the ligamentum teres—the surface of the head of the bone will glide to and fro on the surface of the socket to a limited extent, while the greater tuberosity moves to and fro, so that the centre of rotation will be somewhere in the head of the humerus, and the axis of rotation is, therefore, a line parallel with the axis of the shaft of the humerus. And when the forearm is flexed to a right angle with the arm, and laid across the chest, *the arm is nearly in a state of mid-rotation.*

Again let me draw your attention to some important points of practical anatomy, as found in the bones of the forearm:

*First.* The bones of the forearm form a quadrangle. In one position these bones are in the same plane. Flex the forearm to a right angle with the arm, and lay it across the chest; the radius and ulna are in the same plane when the forearm is in a state of mid-rotation; then pronate or supinate the forearm, and the radius and ulna will not be in the same plane. Completely extend the forearm, and lay it on its back; the radius and ulna are in the same plane, when the forearm is in a state of nearly complete supination; then pronate the forearm, and the radius and ulna will not be in the same plane.

*Second.* When the forearm is completely extended, and in a state of complete supination, the axis of the forearm and the axis of the arm, at their point of meeting, usually form a very obtuse angle, which varies in size for different persons.

*Third.* When the forearm is flexed to a right angle with the arm, and laid across the chest in a state of mid-rotation, the plane of the radius and ulna forms a pretty constant angle with the axis of the humerus. A great many measurements of this angle give an average of about  $145^{\circ}$ —its supplement being  $35^{\circ}$ —so that the forearm normally rotates through an arc of about  $180^{\circ}$ ; it sometimes rotates through a greater arc, and sometimes it rotates through a less arc. Hence, if the arm rotates through an arc of  $90^{\circ}$ , and if the forearm rotates through an arc of  $180^{\circ}$ , the upper limb will rotate through an arc of  $270^{\circ}$ .

*Fourth.* The forearm is somewhat like a truncated cone, whose bases are at the elbow and the wrist; the convergence from the elbow to the wrist varies in different persons; it is sometimes considerable, and it is sometimes slight.

My practice for some years has been influenced by the above considerations, and I have from time to time constructed splints for the arm and forearm upon the principles involved in the practical anatomy, as I have just enunciated it, and I have had many encouraging results. Let me now briefly describe these splints, point out their uses, and show their advantages:

A double-angled splint, constructed on the facts above set forth, will meet the requirements for treating, with a good degree of success, many of the injuries of the forearm. The splint is best made of a piece of board and a piece of wire-cloth. The piece of board extends from the ends of the fingers to the end of the olecranon; it is about

three-eighths of an inch thick, and it is wide enough, in each case, to prevent strangulation of the hand and forearm, and obviate pressing the radius and ulna toward each other. The upper and outer angle of the olecranon end of the piece of board, for a distance equal to the diameter of the arm, is beveled, so that the cut surface and the inner surface of the board make an angle of about  $145^\circ$ , and the piece of wire-cloth is securely fastened to the beveled surface, having its axis at a right-angle to the axis of the board. It will be seen that this splint has two angles—one a right angle, the other an angle equal to the angle made by the axis of the arm and the plane of the quadrangle of the forearm. The wire-cloth is galvanized, having a mesh about one-half inch square, and a wire about one-sixteenth of an inch diameter. Both the mesh and the wire may be smaller for children. Cut a piece of wire-cloth with pliers,—the piece may be wide enough to cover one-half the surface of the arm, and it may be long enough to reach to the middle of the arm, or to the acromion,—and when the piece of wire-cloth is fastened to the board, as above described, its posterior edge is bent inward and downward, and fastened to the olecranon end of the board. This bent edge lays hold of the posterior surface of the arm, and also prevents the piece of wire-cloth from bending.

A fact to be noted here is that the head of the radius and the external condyle are nomially in the same line; that is, they project outward about equally. These two landmarks are readily found when the forearm is flexed to a right-angle with the arm.

The double-angled splint, above described, may be used for fractures and other injuries of the forearm, and the advantages of such a splint are theoretically and practically as follows:

1. The double-angled splint cannot slip off the forearm in a distal direction, because the piece of wire-cloth, being fastened to the arm, will prevent such a result.

2. The double-angled splint will put and hold the bones of the forearm in mid-rotation,—in the plane of their quadrangle,—because it has been constructed with the angle that this plane, when demi-flexed, makes with the axis of the arm.

3. The double-angled splint will prevent (*a*) extension and flexion of the forearm; and it will prevent (*b*) pronation and supination of the forearm, because the two pieces of the splint are immovably fastened together. It, therefore, keeps the injured forearm securely and perfectly at rest in a most favorable position, and this is a primary and essential indication of surgical practice.

4. The double-angled splint can be first fastened to the arm, and then the distal fragments of the broken bones can be drawn into place and fastened to the distal part of the splint, thus enabling the surgeon to make extension and counter-extension, while the broken bones are in the same plane.

5. The double-angled splint permits the surgeon to remove the bandages from the forearm, leaving the bandages on the arm,—which



an assistant may hold,—while the forearm is gently flexed and rotated, so as to preserve and restore its important functions. Also the condition of the injured parts can be inspected, from time to time, by gently holding the injured forearm against the splint, while the bandages are off, thus obviating serious disturbance of the fragments.

The double-angled splint is generally a dorsal splint, but it may be made a palmar, or anterior splint, if the occasion require it. And when the double-angled splint is dorsal, a suitable anterior splint may be applied to the forearm, according to the judgment of the surgeon; but when the double-angled splint is anterior, a posterior splint may be applied to the forearm; this additional splint is made equal in size to the wooden part of the double-angled splint.

It is an excellent rule, in surgery, to put a joint near a fracture at rest; this indication is very completely accomplished in case of fracture of the forearm, by means of the double-angled splint, which embraces both the wrist-joint and the elbow-joint, thereby limiting to a considerable extent the muscular contraction.

So that the theory involved in the construction of this splint is based on anatomical and physiological facts, and, after a somewhat extended use of it, I can recommend it for treating many injuries of the forearm, and I will now designate some of these injuries:

1. Sprains and contusions of the wrist may be well treated with the double-angled splint, because it is one of the best means of putting at rest and properly compressing the synovial membrane of the joint, and the synovial sheaths of the tendons that may be implicated, and it will very comfortably support and protect the wrist after the surgeon has made judicious passive motion.

2. Sprains, contusions, and reduced dislocations at the elbow, are best treated with this splint, because it is specially adapted to fit the structure, and rest the function of this part of the upper limb. In my hands it has produced the happiest effects and the most gratifying results.

3. Simple fractures of one or both bones of the forearm cannot usually be better treated by any other means, because it holds the bony fragments at rest in the same plane, preventing flexion and extension, pronation and supination, and muscular contraction. But in a fracture of both bones of the forearm, near the elbow, I found that the double-angled splint failed to give a perfect result.

4. In treating one case of compound fracture of the forearm, the opening being on the inside, the double-angled splint was of the greatest possible service, by fastening a trough of wire-cloth to the underside of the board-piece with wire-hinges, and swinging it under, up, and around the inside of the forearm, which was gently placed in this trough on a bed of oakum, where the process of repair went on most kindly. The patient was a laborer, about fifty years of age.

5. A compound comminuted fracture of both bones of the right forearm of a young man was resected at two different times; the opening was on the back of the forearm, midway between the wrist

and the elbow, and the crushing was done by machinery. After the resections the limb was laid on an internal, double-angled splint, well lined with oakum, and a trough of wire-cloth, fastened with wire hinges to the lower edge of the board-piece, also well lined with oakum, was swung backward, upward, and around the forearm and hand, two compresses—one above and one below—keeping the fragments in place. The case did well.

The trough of wire-cloth had special advantages. It is a very perfect retentive appliance; it enables the surgeon to make frequent examinations without disturbing the bony fragments; it affords the greatest facility in removing and reapplying the dressings, and it enables the surgeon to make proper passive motion of the wrist-joint and of the elbow-joint. And, in general, the double-angled splint usually gives relief from pain, a fact which patients often express in grateful words. And the patient who wears this apparatus can lie down, sit up, or walk about, with great comfort and safety; of course the forearm is put in a sling.

A splint for treating fractures of the humerus may be constructed in the following manner: Cut two pieces of wire-cloth wide enough to cover laterally one-half the surface of the arm; let one be long enough to reach from the end of the acromion to the junction of the shoulder with the neck—this is the short piece; and let the other be long enough to reach from the end of the acromion to about two inches beyond the dorsum of the ulna, in a line with the axis of the humerus—this is the long piece. Bend each piece into the shape of a trough, and fasten each piece at the middle of its convex surface to a wooden strip one-half inch thick, and one inch wide; connect one end of the short piece to one end of the long piece, by means of a hinge of leather, brass, or iron; now fasten one end of a piece of wire-cloth to the back of the other end of the long piece; this piece is to be applied to the dorsum of the forearm, the long piece is to be applied to the arm, and the short piece is to be applied to the shoulder. The piece of wire-cloth for the forearm must be even with the lower end of the long piece; it must be bent at the elbow, so that the forearm, when fastened to it, will be at a right-angle to the arm, and so that the arm will hang by the side having the greater tuberosity directly under the acromion; and it must be as wide as the forearm, and extend to the ends of the fingers. The manner of applying this apparatus is as follows:

(a). Let the flexure of the joint of the splint be over the end of the acromion, and the short piece over the shoulder from that point to the neck, and let the long piece drop down over the external lateral surface of the arm; gently, but firmly, bind the upper end of the splint to the shoulder, by a bandage passing around it and under the axilla,—this is the first step,—and the upper end of the splint cannot move in any direction; now take the forearm and the distal fragment of the broken arm from the hands of the assistant, and, because the upper fragment and the shoulder are fastened to the upper end of the splint,



extension can be made by traction downward on the forearm, and counter-extension can be made by pushing upward on the splint, so that the fragments can be easily reduced in the most perfect manner, and with the greatest relief to the patient; and now bind the distal part of the splint upon the dorsum of the forearm; and then, finally, mould the ends of the fragments in place with the ends of the fingers, supporting them by a suitable internal splint; and over both splints, where they cover the broken arm, apply a bandage from above downward; put the forearm of the patient in a sling, and let him walk about.

(b). The advantages to be derived from the use of this apparatus may be briefly enumerated :

1. It enables the surgeon to make extension and counter-extension with ease and safety; and this work cannot be so well done without the piece for the forearm.

2. It prevents undue motion of the fragments, and obviates their rotary displacement: two events which are apt to follow, when there is no piece applied to the forearm. And I have more than once seen a patient hold or carry his forearm with his other hand, when splints were only applied to the arm, in order to prevent motion of the lower fragment and consequent pain.

3. It permits the patient to go about with comfort and safety, thereby conducing to the general health, so that the fragments will unite more kindly. Let me say to you that I have seen a strong, healthy man put on his back, and kept there for weeks, for a simple fracture of the humerus, near its middle—an unnecessary procedure.

4. Without removing any part of this apparatus, the surgeon can make enough passive motion of the shoulder-joint to retain the integrity of its function.

5. It allows the surgeon to make judicious, early, and continuous passive motion of the elbow-joint, by liberating the forearm from time to time, while an assistant holds in his hands that part of the apparatus applied to the arm.

6. There is the minimum of pain during the primary application of this apparatus, and during the course of the general treatment.

(c). The arm-splint, comprising the long and short pieces above described, may be combined with the double-angled splint for the forearm, in some cases of injury of the upper limb. For instance, a fracture near the elbow-joint, with or without dislocation at this joint, may be well treated by means of this combined apparatus. When the humerus, the radius, and the ulna are broken at the same time, it makes a very complete, reducing and retentive appliance; and, in fact, it may often be used to advantage in an ordinary fracture of the humerus, or of the forearm.

## ORIGINAL ARTICLES.

## INTERESTING AND INSTRUCTIVE CASES IN SURGERY.

From the Case-Book of the late J. S. THERRAULT, M. D., Surgeon to St. Vincent's Hospital,  
 Colored Home, &c.

## CASE OF ESTRIS HOMINIS.

REMOVED from the cellular tissue (subcutaneous) below the armpit as follows:—A man of about 35 years of age, of good health, apparently, presented himself to me about two months since, during my hour of attendance at the New York dispensary, complaining of a swelling in his left armpit.

He stated that he had been travelling in Central America, and that while there, six months previous to my seeing him, he perceived a small swelling in his left armpit, which gradually enlarged, and became very painful, incommoding him considerably in the motions of his arm. On returning to New York, he travelled from New Orleans up by land, consulting physicians in the different cities on his route, who pronounced it a simple abscess, and advised it to be poulticed, which advice he had strictly followed for the last four months.

On examination, I found two oval tumors on the side of the body, just below the armpit, between the third and fifth ribs, the lower and smaller one about the size of a pullet's egg, movable under the skin, somewhat firm to the touch, with no inflammatory base, and no inflammation of the skin. Of this he did not complain, and seemed uneasy only about the higher and larger one, which was of the size of a large hen's egg, hard, painful at all times, and to the touch increased; somewhat attached to the skin; warmer than the surrounding parts, or brother tumor, and giving evidence of inflammation. The skin over the tumor had a hard, gristly feel, was of a bluish color, slightly œdematous at the margins, and tender to the touch.

I advised an incision to be made into the tumor, to which he readily consented, saying "that he had suffered long enough with it." The knife passed through a hard, gristly tissue into the cavity, at the bottom of which I perceived something moving, and on examining still further, found it to contain a worm or insect of some kind. On grasping it with the forceps, it seized hold of the wall of the cavity with its small extremity, but by slight and gradual traction with the forceps it lost its hold, and was dragged from its nest. It lived for a moment, rolling over two or three times by its vermicular contractions, after which, no further evidences of life being perceptible, it was put into alcohol, by which fluid it has been much changed in color and diminished in size.

The other tumor undoubtedly contained an insect of the same variety, though probably not so far advanced in its intradermic life. I proposed



removing it, to which he strongly objected, and, seizing his hat and coat, rushed from the room lest he should be operated on, *nolens volens*. His sudden departure prevented me from examining the cavity or nest, but it was certainly lined with a thick cyst, and it contained some purulent matter.

The worm, on removal, was of a yellowish white color, and about an inch and a-half in length. It is still in my possession (Oct., 1852), though much diminished in size and changed in color.

It was presented before the Pathological Society, but none of the members had ever seen anything of the kind before.

Drs. Fountain and Le Count, who have both spent some time in California, have lately informed me that they are not rare in that country.

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#### HYMEN IN A FEMALE THIRTY-THREE YEARS OF AGE.

M. DICKEY, native of Ireland, and 33 years of age, states that within her recollection she has never discovered any opening into the vagina, though she menstruates regularly, and the discharge of blood escapes so as to stain her linen.

On examination, the vagina was found closed, with the exception of a small opening at the posterior part of its entrance; through this a small catheter could be passed, which allowed the exit of a quantity of greenish and fetid pus. The mucus membrane, inside the vulva, was inflamed, probably owing to the fact that two weeks previous an attempt at coition had been made, which we need not say was unsuccessful. She states that considerable effort was made on the part of both, and, finally, each retired, suffering considerable pain, and fully disgusted with one another.

An operation was thought advisable, and I accordingly obliterated the stricture and membrane, by making two lateral and one vertical incision downward, which were accompanied by some hemorrhage, and immediately allowed the entrance of the finger, and then the speculum, without much pain. The vagina, at its commencement, was stuffed with lint.

*Nov. 29th.*—Four days after, the patient pronounced herself much relieved; the discharge ceased, as also the pain, and the speculum was easily introduced. A candle was ordered to be passed, night and morning, for a week or two.

*Dec. 15th.*—On making an examination, found the vagina free, and the case cured of the natural stricture.

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#### INDURATED CHANCRES OCCURRING TWICE IN THE SAME PERSON.

B. C., aged 25, born in Ireland, formerly student at Trinity College, had, in April, 1851, an indurated chancre, attended with bubo, which suppurated, sore throat, roseola, and characteristic rheumatic pains coming on at night.

He was treated, externally and internally, with mercury, which slightly salivated him, when the chancre immediately commenced to heal. It is well to remark that the patient had the chancre over one month before

treatment was commenced, and this was only discovered by the physician who had been consulted for the bubo.

*March 20th, 1853.*—The patient came to me five weeks after his last connection with a female, complaining of a lump in his groin. On feeling the engorged gland, and hearing the history of his previous attack, knowing that, as yet, no case of indurating chancres occurring twice in the same person had been published, I felt considerable interest in the case, and, upon close examination, discovered two indurated chancres, one on either side of the frenum preputii, without any sign of inflammatory action; furthermore, he already had the above-mentioned enlarged inguinal gland, sore throat, roseola, and rheumatic pains at bed-time, confined to the brachii and shaft of the thigh and shin-bones.

*Treatment.*—Internally, the protiodide of mercury. Externally, a wash of tinct. myrrh and natu.

*April 6.*—Chancres healed; induration diminishing, and engorged ganglions much reduced; no caustic application was made to the chancres.

Dr. W. P. Lattimore saw the patient before the chancres were healed, and pronounced them to be the true non-inflammatory variety.

*Dec. 20, 1854.*—Secondary still exists, in spite of continued treatment by mercury and potash.

HENRY PECK, aged 25, native of New York, came to me on Sept 7, 1852, with four indurated chancres, situated around the corona glandis, accompanied by the engorged ganglions. He had been variously treated since the commencement of August, by different quacks. The chancres healed rapidly under the use of black wash, but the induration remained for nearly two months, feeling, to use the patient's own expression, like so many pills under the skin. This yielded to the protiodide.

*April 2.*—Made his appearance again, having had connection two weeks previous, with an indurated chancre just behind the corona glandis, inside the prepuce. Both times they were of the non-inflammatory variety, and accompanied with engorged inguinal glands. The chancre soon healed with the external use of black wash.

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#### CANCER CUTS OF THE NECK.

JOHN O'CONNOR, aged 59 years, born in Ireland, presented himself to me on the 12th April, with an ugly looking sore on the left lateral region of the neck. On examination, it was indurated, somewhat attached below, and gave off an ichorous-looking discharge. It had commenced six years previous, having the appearance of a wart, which, he said, he pulled out, bringing with it a stringy substance, since which time he has always had burning, smarting, and pricking pains in the tumor. It had gradually increased in size, becoming more painful and troublesome daily, until now it fills that space existing between the sterno-cleido mastoid muscle and the trapezius on the middle of the lateral portion of the neck.

On the same day, assisted by Drs. Van Buren and Rochester, I removed



the mass, by making two elliptical incisions around it, and dissecting it from its bed between the two muscles. Two small cervical glands were also removed; the hemorrhage was profuse, but no vessels required ligatures. The lips of the wound were brought together by stitches and adhesive plaster, in hopes of getting union by first intention.

The specimen, being examined under the microscope, presented almost every variety of cancer cells.

*April 25th.*—Failing to get union by first intention, the wound was left to granulate, and now is nearly filled up, but looks suspicious in the centre. Cauterized with lunar caustic; dressed with cerate.

*May 1st.*—After cauterizing several times with the acid nitrate of mercury, was discharged cured.

Died about six months after of acute attack of pneumonia. No return of disease.

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## PERISCOPE.

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### COLLABORATORS.

*Dermatology.*—HENRY G. PIFFARD, M.D., Professor of Dermatology in the University of New York.

*Diseases of the Nervous System.*—EDWARD C. SEGUIN, M.D., Professor of Diseases of the Nervous System in the College of Physicians and Surgeons, New York.

*Diseases of Women and Children.*—FRANK P. FOSTER, M.D., Gynecologist to the New York Hospital Out-door Department.

*General Surgery.*—EDWARD J. BIRMINGHAM, M.D., Surgeon to Bellevue Hospital Out-door Department.

*Genito-Urinary Diseases and Syphilis.*—ROBERT W. TAYLOR, M.D., Professor of Dermatology in the University of Vermont.

*Ophthalmology and Otology.*—S. B. ST. JOHN, M.D., Assistant Surgeon to the New York Eye and Ear Infirmary.

*Orthopedic Surgery.*—NEWTON M. SHAFFER, M.D., Surgeon to the New York Orthopedic Dispensary and Hospital.

*Practical Medicine.*—E. DARWIN HUDSON, JR., M.D., Professor of Practice of Medicine, Woman's Medical College, New York.

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## CEREBRAL LOCALIZATIONS.

At the International Medical Congress, held at Geneva, September 10th, Dr. Broadbent, of London, read a paper upon this subject, his conclusions being based upon experimental and clinical data. The author admits the correctness of the view which places motor centres round about the fissure of Rolando in man, and he believes that localized lesions of these parts (ascending frontal and parietal convolutions) will produce correspondingly limited paralyses on the opposite side of the body. Pathology does not give us much light upon the functions of the anterior frontal and the occipital convolutions. There is no special cerebral vaso-motor centre.

As regards the central ganglia, Broadbent believes that the corpus

striatum is essentially motor, and the optic thalamus essentially sensory in functions.

Symptoms of nervous disease as produced as follows :—

*a.* Paralysis is due to rupture of fibres or cells belonging to the motor mechanism.

*b.* Anaesthesia is due to a break in the sensory mechanism.

*c.* Tremor is the result of impeded conduction in white fibres.

*d.* Convulsions (chorea included) is the result of irritation of grey matter.

*e.* Early and temporary contracture is caused by pressure on a ganglion.

Professor Schiff, while admitting that there may be motor centres in the cortical substance of man, denies that the experiments of physiologists have proved their existence in animals. He thinks that clinical observation demonstrates that the grey substance of the thalamus opticus is not sensory in function. (*Progrès Medical*, 1877, No. 38.) E. C. S.

## LEAD POISONING.

M. H. RICHARDSON, *Boston Medical and Surgical Journal*, Oct. 4th, 1877, gives results of observations on seventy-five men in white lead works at Salem, Mass. General appearance of the men below that of the average workman, faces sallow, and more or less worn; sclerotic yellow. Motions far from energetic, in some cases eccentric and unsteady. Of seventy-five men all but three had the blue line on gums, and most of them suffered from obstinate constipation. Three had suffered with difficulty in speaking, three with amaurosis, several with cerebral troubles, and many with paralysis. A frequent complaint was of swollen joints and aching bones. A tradition had become established among the men that indulgence in alcoholic liquors favored the early development of the poisonous effects of the lead. "The length of time that one can work, surrounded by these poisonous exhalations, is subject to immense variations. Some men have become paralyzed in less than a month, others exist for years. One man had outworked twenty others."

D. A., age 42, has worked for twenty-five years in the worst position the mill affords—that of shovelling the dry powdered lead—and has seen forty-seven men leave the mill to die from the direct effects of the poison. Has had habitual constipation, colic, blue line, and recently cold and swollen extremities, wrist drop, unsteady gait and tremor, and yet can shovel six tons daily. \* \* \* Dr R. has conducted an experiment to test the reputed poisonous effects of newly painted surfaces. Fresh air, passed first through white paint was next passed through dilute sulphuric acid, and finally through sulphate of soda in solution, showing that there existed no volatile compound of lead, or lead mechanically suspended in the current of air. The writer believes no salt of lead can be volatile at ordinary temperatures.

E. D. H. JR.

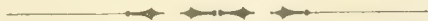


## MITRAL STENOSIS AND PREGNANCY.

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DR. ANGUS MACDONALD, in course of article on "Bearings of Chronic Diseases of the Heart upon Pregnancy and Parturition," August, 1877, *Obstetrical Journal of Great Britain and Ireland*, gives reports of twelve cases of mitral stenosis in pregnant women. "Nine cases out of twelve, or 75 per cent. fatal, which indicates a tendency to death in the combination of mitral stenosis with pregnancy, which is surely sufficiently grave, and more especially seeing that there was in none of the cases any purely obstetrical reason, such as pelvic deformity, likely to add additional risk to the delivery. Of these twelve cases, four were primiparæ, of whom three died; three were pregnant for the second time, of whom two died. The other five, at time of observation, were confined for the third, fourth, sixth, tenth, and twelfth time." No proven death from embolism. A manifest tendency to abortion or premature labor with all these patients. Few carry their children to full term. Congestive bronchitis, pulmonary œdema, apoplexy of the lungs, are mentioned as the chief products of this condition.

E. D. H. JR.



## THE INDICATIONS FOR DRAINAGE OF THE KNEE-JOINT.

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DR. J. SCRIBA, assistant in the Surgical Clinic at Freiburg (Baden) recommends drainage of the knee-joint, instead of excision, in the following cases: 1. In acute serous inflammation, in the rare event of there being abnormal pain of sufficient severity to affect the patient's general health. 2. In acute purulent inflammation of the joint, as soon as there is distinct fluctuation; in the rare case of osteo-myelites, involving one or both epiphyses; in the purulent inflammation which may complicate pyæmia, pneumonia, acute infectious diseases, and phlegmonous erysipelas of the lower extremities. 3. In chronic serous inflammation of the joint. 4. In fungous inflammation—(a) where the fluid secretion in the joint exceeds the fungous granulation in amount, and where the cartilage is still intact; (b) where there is excess of fungous granulation, but where caries is still absent. The presence of caries is a contra-indication for drainage, and an indication for excision. Scriba lays down the following maxim, in opposition to those British surgeons who counsel very early excision: "The earlier chronic fungous inflammation of a joint comes under treatment, the better hope is there of giving the patient a useful movable knee-joint, by means of drainage." It should be stated that Scriba only speaks of drainage applied to a joint *which is opened at the moment the tube is inserted*, and not to one in which there is a previous wound, either surgical or accidental, of some standing. The operation, as performed by Scriba,

is briefly as follows: An incision, two or three centimetres long, is made on either side of the patella, down to the joint, and a drain-tube inserted. If the bursa, under the extensor muscles, communicates with the joint, as a rule, no further incision is needed. In the rare case in which it is isolated, an incision is made down through the quadriceps femoris, and a short tube inserted. The operation must be carried out *with the strictest antiseptic precautions*. Before the drainage-tube is inserted, the joint is "swabbed" with a soft sponge, in acute cases using a five per cent. solution of carbolic acid; in chronic cases, or where there is fetidity, a twelve per cent. solution of zinc chloride. The tube is then put in, and the joint washed out through it with carbolic acid (two and a-half to five per cent.), until the solution runs clear. During the injection the joint must be gently kneaded with the hand. In acute inflammation the tube must be removed as soon as possible. The greater part may be taken out after the third or fourth dressing, if the wound is perfectly sweet, and the remainder on the tenth to fourteenth day. If the secretion does not quickly diminish, the joint must be washed out again with carbolic acid, and the drainage somewhat prolonged, but the whole tube must never be left in after the tenth to twelfth day, for fear of irritating the cartilage on which it lies. In chronic cases, or where fungosity is present, the tube must be allowed to lie across the cavity of the joint for twenty or thirty days, in order to stimulate the lining membrane.—(*Med. Times and Gazette*, Sept. 15th, 1877.)

N. M. S.

## REMOVAL OF WEDGE-SHAPED PIECE FROM INTERNAL CONDYLE OF FEMUR FOR KNOCK-KNEE.

BY

MR. CHIENE. (*Edinburgh Medical Journal*, Sept., 1877.)

At the meeting of the Medico-Chirurgical Society of Edinburgh, held on July 4th last, Mr. Chiene exhibited a boy upon whom he had operated for knock-knee. Previous to the operation, he walked with great difficulty, so great was the deformity. The result of the operation was, practically, a pair of straight legs. Mr. C. remarks that Meyer and others had shown that the real defect in knock-knee is an elongation of the inner condyle of the femur. He did not, however, accept this fully, as, perhaps, the external condyle was deficient. The result, whatever the cause, was that the tibia was thrown out of its proper axis. Dr. Ogston, of Aberdeen, had narrated a case,\* where he had operated by sawing obliquely through the internal condyle. Mr. C. was afraid that, in pursuing this plan, he might interfere with the crucial ligaments. He had accordingly operated in the following manner: Taking the tubercle into which the tendon of the adductor magnus is inserted as a guide, a vertical incision is made through skin and fascia; then, on drawing these aside, the oblique fibres of the vastus externus can be seen in front, and the periosteum exposed. The internal articular artery is next secured

\* See *Hospital Gazette and Archives of Clin. Surg.*, Oct. 1st, 1877.

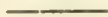


by a double ligature, and divided. Lastly, the periosteum is raised up, and a wedge-shaped piece of bone is cut, by chisel and mallet, from the substance of the internal condyle. By gentle pressure the leg is now brought to its normal axis. The knee-joint is not opened. In the case exhibited, the wounds in each leg healed in a fortnight, but splints were kept applied for two months. Esmarch's bandage and careful antiseptic measures were used during the operation. The immediate after-treatment is not stated.

N. M. S.



### INFLUENCE OF SULPHATE OF ATROPIA ON NIGHT SWEATS, AND IN THE PROGRESS OF PHTHISIS.



OETTINGER (*Wiener Med. Presse*, 1877, No. 34), employed sulphate of atropia in 45 cases of phthisis. The solution contained one and a fifth grains to the ounce of distilled water, of which 10 to 20 drops were given daily. In 12 cases the sweats disappeared with the first dose, and did not return. In 18 cases the sweats reappeared when the medicine was suspended, and he found it necessary to renew for a long time, with care to have occasional intervals of four to eight days. The only disagreeable results were slight pruritus of the neck, and dilated pupils. He concludes the influence of sulphate of atropia on the temperature is absolutely negative. It also has no effect in checking the progress of the disease, except so far as the night sweats are lessened, and the invalid rests better.

E. D. H., JR.

## ABOUT BOOKS.

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*Transactions of the International Medical Congress of Philadelphia, 1876.*  
*Edited for the Congress by John Ashhurst, Jr., M. D. Philadelphia,*  
*1877.*

THIS work is a large imperial octavo volume of no less than 1,153 pages, containing, with a few slight omissions, all the papers read before the International Medical Congress, both in general session and in the sessions of the several sections. The volume also contains the minutes of the meetings, lists of officers of the congress, and of the various sections, and also of the delegates to the congress.

It would be utterly impossible, in the short space allotted to us, even to attempt to give a list of the articles contained, and much less to give an idea of the scope and variety. Suffice it to say that there is no branch of medicine which has not been touched. Most of the articles are very properly condensed, and the whole gives an epitome of the status of medical science at the present day.

Among the list of contributors to the volume we notice the names of many of those gentlemen who have attained a prominent position among the profession of this country, and some of whom are known wherever the light of science has penetrated. There are also a number of papers, and remarks during discussions, by many distinguished foreigners, and especially by our British cousins, but we notice a marked absence of visitors from Germany, though there were a number of gentlemen present from Russia, Norway, and Sweden. However, the work is cosmopolitan in character, and we hope that it will not be many years before we have another similar gathering of the shining lights of science on our shores.

The task of editing the volume must necessarily have been a very arduous one, and we think that the gratitude of the profession is due to Dr. Ashhurst for the able and thorough manner in which he has fulfilled the laborious office.



# THE HOSPITAL GAZETTE

AND

## ARCHIVES OF CLINICAL SURGERY,

A Semi-Monthly Journal of Medicine and Surgery,

EDITED BY

Edward J. Bermingham, M. D., and Frederick A. Lyons, M. D.

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WHOLE No. 20.

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### EDITORIAL.

#### HOSPITAL FOR DISEASES OF THE RECTUM.

WE are pleased to see that a successful effort has at last been made to found an institution in this metropolis for the treatment of diseases of the rectum. It is quite evident that the importance of this class of diseases has not been generally recognized by the profession, and it is just as evident, at the same time, that the charlatans have taken advantage of this apathy on the part of the profession, and have succeeded in monopolizing, almost entirely, patients suffering from these distressing, yet simple maladies. The treatment of rectal diseases occupies the same place to-day as venereal diseases did years ago, before an enlightened profession wrested it from the hands of charlatanism; and it remains for us now, not to constitute it a specialty, and consign it to special practitioners, but to conscientiously and thoroughly study the nature and treatment. We are not to regard this class of diseases as requiring any special skill in diagnosis or treatment. It does not. We need but to use our senses, and to

examine the cases as thoroughly as if the disease was situated on any other part of the body. It is a false delicacy which induces a physician to forego an examination of a diseased rectum; and such a course will most assuredly redound both to his own and to his patient's injury. When attended to properly, no class of diseases offers more brilliant results, but, when treated empirically, the consequences are often disastrous. When we couple this fact with a statement which Mr. Allingham makes in his work, that "rectal diseases are the most common that affect civilized humanity," is it not surprising that more attention has not been bestowed upon them by the profession?

An effort in the right direction, however, has at last been made. On the evening of the 10th inst., a number of gentlemen interested in establishing such an institution as might afford proper treatment to all, and especially to the poor, met at the office of Dr. Edward J. Bermingham. Ex-Judge M. C. Gross was chosen as chairman *pro tem.*, when a Board of Managers was organized, and the following officers then elected:—Mr. Joseph C. Tracy, the Peruvian Consul in this city, President; William Lindsay, Vice-President; Dr. Edward J. Bermingham, Secretary; M. V. B. Travis, Treasurer. The following Medical Board was then organized:—Consulting Surgeons, Drs. Willard Parker, Wm. H. Van Buren, Frank H. Hamilton, and Henry B. Sands; Surgeon, Dr. Edward J. Bermingham. This staff will be increased from time to time, as the requirements of the institution may demand, by the appointment of assistant surgeons.

At a subsequent meeting of the Board of Managers it was determined that the institution be known as the GOOD SAMARITAN HOSPITAL, and that the dispensary department be opened immediately.

A committee was appointed to secure suitable quarters by the 1st of January, when it is hoped work may be begun.

To avoid the abuse of this charity, the managers have decided to adopt the "Provident System," as the following extract from their by-laws will show:

"No member of a family whose income is over ten dollars a week shall be entitled to gratuitous treatment. Those families whose income is between ten and fifteen dollars per week, shall be required to pay ten cents per week while under treatment in the dispensary department. Where the income is over fifteen dollars, but does not exceed twenty dollars, they shall be required to pay twenty cents per week. Where the income exceeds twenty dollars per week, the rate per week shall be fixed at the discretion of the surgeon. All moneys received from this source shall be handed to the treasurer at the end of each month."

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## A RETROSPECTIVE GLANCE.

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WITH the present number of the journal we complete our second volume, and now, for the first time in our journalistic career, venture to call attention to our achievements. We think that since we first appealed to



the profession for encouragement in the enterprise upon which we were venturing, we have striven to fulfil the pledges then made, and have labored earnestly to accomplish the object we had in view, viz.: the establishment of a cosmopolitan journal, one which should be published in the interest of the profession of the whole country, and which should remain uncontrolled or uninfluenced by any local "ring." The struggle has been great, but the satisfaction of having achieved what we had set out to do, is still greater, and we can now point with just pride to the GAZETTE, as the representative journal of the profession. This is not a mere idle assertion, but one which may be substantiated by an examination of our numbers, issue after issue. The most distinguished men from all quarters of the union recognize the GAZETTE as the most desirable medium for communicating their ideas to the profession. It is not often, and we doubt whether it has ever been, the fortune for a medical journal to point to such a list of contributors as those who have honored our pages with their articles during the past eighteen months. HAYES AGNEW, PEPPER, GOODELL and MEARS, of Philadelphia; CHISOLM and TIFFANY, of Baltimore; ANDREWS and BYFORD, of Chicago; BLAKE, CHEEVER and WHITE, of Boston; COWLING, of Louisville; DAWSON, of Cincinnati; EVE, of Nashville; BATTEY, of Georgia; TABER JOHNSON and REYBURN, of Washington; MCGRAW, of Detroit; MINER, of Buffalo; POOLEY, of Columbus; WIGHT, of Brooklyn; PARKER, CLARK, CROSBY, DELAFIELD, FLINT, HAMILTON, HAMMOND, HOWE, JACOBI, JANEWAY, LITTLE, LOOMIS, MASON, OTIS, PIFFARD, POLK, POST, SAYRE, SMITH, TAYLOR, THOMAS, THOMSON and WEIR, of New York. Even on the other side of the broad Atlantic the merit of our journal is recognized, as evidenced by the communications from those distinguished lights of the profession, HOLMES, of London, and BROCA, of Paris.

We have bestowed the same amount of attention on the other departments of the journal, and we are proud to see that many of the old periodicals are imitating our example of furnishing CLINICAL LECTURES, and are bestowing more attention to their HOSPITAL RECORDS.

In our PERISCOPE, we still hold the lead, thanks to the industry of the gentlemen having charge of the several departments. No other journal has as yet attempted the undertaking of presenting an analysis of current medical literature by responsible and able collaborators, that work being generally done in a very careless manner. There is but one journal that we except from the above criticism: *The Boston Medical and Surgical Journal*, all the departments of which are ably conducted, and which justly deserves the position it has attained.

EDITORIALLY, we have endeavored to stand for the enlightenment, support and advancement of the profession. If, in doing this, we have given offence to such men as SAYRE, of New York, and that notorious *attaché* of Buchanan's Diploma Mill, POLK, of Philadelphia, we do not regret it. Our journal belongs to the profession, and we have but done our duty to it and to our subscribers. Many new facts have come to our notice in reference to the controversy between Dr. S. and ourselves, which we shall present to our readers at an early day. We have also become cognizant

of the unprofessional and ungentlemanly conduct of several members of the profession, and several journals seeking the support of the profession. Among other matters of importance we shall soon have occasion to refer to these. We shall strive hard to maintain the honor and dignity of the profession, and in our efforts to do this we shall expose fraud and corruption, wherever found, whether in the top rank of the profession, or among the disreputable *attachés* of a still more disreputable institution legalized to disgrace the profession in America.

In conclusion, we point to our past history, and promise to continue in the line of our duty, and to improve the GAZETTE wherever and whenever it be possible.

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## LECTURES.

### LECTURES ON PARALYSIS AND CONVULSIONS, AS EFFECTS OF ORGANIC DISEASE OF THE BRAIN.

Delivered at Bellevue Hospital Medical College,

BY

C. E. BROWN-SEQUARD, M. D., Etc.

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#### LECTURE III.

GENTLEMEN:—I have endeavored in the two preceding lectures to bring forward facts which prove that paralysis and convulsions are not due to the causes that are now generally admitted to obtain by most physicians. I have tried to show that paralysis, instead of being due to a local lesion in a direct way, is caused by an irritation starting at one point, and propagated to cells at a distance. The phenomena are not due to a loss of function in that part in which the disease exists, but to an irritation starting from such a point, and carried to other parts at a distance. To take a single instance, the cells of gray matter that serve, or are put in action, when the will is exercised, to lift the arm. These cells are not aggregated in one particular spot, but are scattered all over the brain, and, if loss of power of moving the arm exists, there is a loss of functional activity of the cells that produce it. As they are scattered, destruction of a considerable portion of the brain will not cause a loss of power to produce these movements, as there will still be some of this class of cells left able to perform their function. Paralysis, then, is simply a loss of functional activity. It is the same phenomenon as occurs when we produce paralysis of the heart, by galvanizing the par vagum. In every instance an irritation starts from the place where the disease is situated, whether it be in the cerebrum or cerebellum, and causes an arrest of activity at a distance. This view is in harmony with all the facts that are observed, and explains them much better than any other theory that I know of. A theory, in order to be true, must have all known facts either in perfect harmony with it, or clearly prove the conclusion; and also there must be no fact in opposition with it. Such is not the case with the theories in general acceptance, as I have



endeavored to show, but to my knowledge there is no fact yet observed that is in discord with the view I set forth, and it explains all the known facts; it therefore complies with the conditions. Whether I am absolutely right, or the future still keeps in reserve facts which will show my theory to be incorrect, time alone will determine; but at present it offers an explanation for all the phenomena of disease of the nervous system. One series of facts is certainly most evidently in harmony with this theory. I have already said that all kinds of paralyses, of an infinite variety, may follow from brain disease, wherever located. I have published many facts, observed by the best and ablest clinical writers in the profession, and not recorded by myself, having carefully abstained from including my own cases, and they have established these points. According to the old theories, a lesion in one half of the brain, no matter where located, could only produce paralysis by being in those parts that are considered as centres of voluntary motion. But there are numerous cases of paralysis due to disease situated entirely outside of the voluntary motor apparatus. If the disease be in the voluntary motor apparatus, it ought to produce paralysis in those parts of the body controlled by such portions of the brain, according to the seat and extent of the lesion. Suppose the lesion to be on the left side of the brain, it should produce paralysis on the right or opposite side of the body. Now it so happens that in at least one in every two or three hundred cases, the paralysis exists on the same side of the body as the lesion. This, then, is the first discrepancy between the facts and the old theories that attempted to explain them. Again, the paralysis may only occur in one limb on the opposite side of the body, and this fact is a second point. Moreover, the paralysis may appear in one limb only, without the disease being found in that particular portion of the brain supposed to be the centre for that limb. The face can be paralyzed when the lesion is situated at a distance from the supposed centres controlling the action of its muscles. In thirty or thirty-five cases in which paralysis occurred only in the face, the disease was not in that part which has been considered as its motor centre. The tongue may be paralyzed on one side only, and that on the opposite side from what it should be. There are a number of such cases published. The tongue alone can be paralyzed, but this happens less frequently than the same occurrence in the face, when there is a lesion above the pons Varolii. This is an extremely important point. This lingual paralysis appears by far more frequently on the same side as the lesion than does paralysis of the limbs. The muscles paralyzed almost exclusively when there is a lesion in the spinal cord or medulla oblongata, are paralyzed when the disease is in the cerebellum. In such cases associated movements are apt to suffer. Broadbent, of London, attempts to explain these phenomena by the supposition of a common centre connected with each side, and capable of being excited by either singly. There is no necessity for such a hypothesis. We may have a lesion on one side of the brain, with paralysis of both sides of the neck; or the muscles of the trunk may be affected on one or both sides, either on the right or wrong side. Some of these facts are extraordinary, and there may be an infinite variety of results from a disease in any one particular portion.

A lesion limited to one-half of the brain can produce a paralysis in the two upper limbs, and the paralysis may be as perfect on the wrong side as on the right. In all of these cases, unless you admit that the autopsy has been badly made, or that all of the lesions were not discovered, you must admit that the theories are wrong. However, it does not prove, because we find no lesion, that none exists. Our means of exact diagnosis are not by any means perfect, and a lesion that is actually present may possibly escape the closest observation. But, on the other hand, there are numerous cases in which no such doubt could exist. For instance, if a healthy man, who has never had a trace of paralysis, has a sudden cerebral hemorrhage, which causes paralysis of the two arms, in a short time he dies and the autopsy is made. We then find extravasation of blood on one side, but never find it in the two supposed centres together. I have searched carefully, and have the best means of knowing, but have never found the record of a single case in which it existed. There are, however, a number of such cases of hemorrhage that have caused total paralysis of the two arms, and the autopsy has showed a lesion existing only on one side. In such a case we cannot but admit that all the lesions have been seen.

In paralysis of the lower limbs, we find the same facts, and even more strongly proven. There are many more cases, of the class of which we are speaking, of paralysis of the legs than of the arms.

In a number of well-authenticated cases disease in the cerebrum has produced paralysis in the two lower limbs, where it has no business to produce any paralysis whatever, in a portion of the brain entirely outside of the motor apparatus. Paralysis from such a local lesion is impossible, and still less should the two lower limbs be affected. If you call paralysis merely a loss of power, it should never occur in such a case.

As regards paralysis of the lower limbs, a great many cases are on record, but some of them certainly leave some doubt. When paralysis of the lower limbs appears slowly with loss of power of the sphincters of the bladder and rectum, we usually know that the disease is in the spinal cord. In those cases, then, in which the spinal cord has not been thoroughly examined, there is doubt. But here again the same reasoning comes into play. Suppose we have a case of softening from embolism of the Sylvian artery, with paralysis of the lower limbs, in a healthy man, with no disturbance of the sphincters, if no other lesion is discovered then the case is clear. It is not likely that any other disease has existed in the cord which was not discovered.

In cases of hemorrhage in the brain, which has destroyed life rapidly, these facts are still more evident. If paralysis of the lower limbs has appeared, it is the most natural supposition that the hemorrhage caused it. If you say that in some of these cases the examination has not been thorough, or that all the existing lesions were not discovered, I am willing to agree with you, but it is then reduced simply to a question of the number of cases. You cannot in every case say that there was another cause for the symptoms.

The nervous system is a whole, a unit, and not a system of different



parts or centres simply connected together. It may be put into play throughout its whole extent at once. The whole of it may be called into activity by a single movement, as the mere lifting of the arm, and all the facts that I have related at length, show that an irritation in any one part of this system will cause a change to take place at a distance, by propagation. There are many strong arguments against the theory that loss of tissue, or disease in any one part of the nervous system, will cause a special paralysis.

Now, to pursue this line of argument still further, not only can we see the two lower or the two upper limbs paralyzed together, from disease of one-half of the brain, but we may see three limbs affected. It may be the two legs and the right arm, the two legs and the left arm, or the two arms and the right or left leg. It may be said that some lesion remained undiscovered in these cases, but the same reasoning given in former cases may be applied here with equal force.

We may likewise find a great many other kinds of paralysis. There is a form in which the face is paralyzed on one side, and the body on the opposite, due to disease in the pons Varolii. This was termed "paralysie alterne," by my friend Dr. Gubler, of Paris. Now, with this kind of paralysis, the disease may be situated in other parts of the brain, as the corpus striatum, on one side. I have published a number of such cases. This is a fatal objection to the admission of the old theories to have disease of the left corpus striatum with paralysis of the face on the same side, and of the limbs on the opposite. If you are not aware that such a thing may occur, you will in many instances make a false diagnosis. The diagnosis bears greatly on the treatment and prognosis, and, if the one be false, the others would be wrong. A difference in diagnosis would make great alteration in the prognosis especially, for usually a disease in the pons Varolii is much more rapidly fatal than disease in many other portions of the brain.

What I have said of the face is true of the tongue and eye. There is a kind of alternate paralysis of the tongue, as well as of the face. If the third pair of nerves is paralyzed, the muscles of the upper eyelid, as well as some of the internal muscles of the eye, will be paralyzed. All the muscles, except the external rectus and the superior oblique, will be unable to act. Cross paralysis of this kind occurs, and there are two or three perfectly clear cases. This certainly is a deadly blow to the old theories.

The diaphragm may sometimes be paralyzed, when the lesion is very high up in the brain, above the origin of the phrenic nerves, and there is no lesion lower down.

There are, moreover, muscles not altogether under the control of the will which are very frequently paralyzed from disease of the brain, and these facts are likewise exceedingly favorable to my views. There are certain muscular actions that take place only under the influence of reflex action: among these is the process of deglutition or swallowing. In certain cases the œsophagus cannot perform its function properly, when the reflex power of the cord is paralyzed by some disease.

The same thing occurs with the sphincters of the body, as those of the

rectum and bladder. It is not rare in such cases that, instead of there being difficulty with the retention of the contents of these viscera, there is difficulty in voiding them. These phenomena usually occur in disease of the spinal cord. Now in certain cases of brain disease, where the spinal cord is in an apparently normal condition, we find paralysis of these sphincters as well as of the œsophagus. It may be objected that a lesion of the spinal cord has escaped observation, but the objection is answered in the same way as in the previous instances. The true statement of the facts is this: that disease of the brain produces an arrest of activity in the cells of the medulla oblongata, in the case of the œsophagus, and in the lower part of the spinal cord in the case of the sphincters of the rectum and bladder. An inhibitory effect is produced on these cells. In these facts there is strong proof that a clear inhibition or arrest of activity in the cells of the spinal cord can be produced by disease in the brain. Now, we have still stronger evidence of this fact, because in experiments on animals it is more plainly seen, and leaves no room for doubt. If we cauterize the surface of the brain with the actual cautery, we frequently get loss of power of the sphincters, without any lesion of the spinal cord that can be discovered by careful inspection and microscopic examination.

Now, if you try to examine closely the new views, you will find that all these facts are in perfect harmony with them. It cannot be otherwise; and it must be that when there is paralysis of both sides of the body, where the lesion is situated only on one side, an irritation is carried from the place of the lesion to the other side. Now, if we turn our attention to hemiplegia, and look carefully into its history, we shall see all these facts still further substantiated. There is no complete hemiplegia ever existing alone. I have never in all my experience seen a case of complete hemiplegia without there being some paralysis on the other side of the body. This fact is chiefly noticeable in the legs. There seems to be from a lesion in one-half an influence exerted on the other side. There is only a difference in degree between the two sides of the body; one side is paralyzed more than the other. If you ask the patient to stand on the sound limb, he cannot do it well, and simply from the weakness of the limb alone; from no other cause does it arise. You might say that the force or power itself is not altered, but that the patient's inability to perform the act arises from the muscular sense being affected. This, however, is not so. This objection can be obviated by testing the power of the limb in other ways than by standing on it. I have tried the power of the limb in other ways, and have found, without doubt, that the force itself is lost to a certain extent. There can be no reason for a diminution of power unless there was a transmission of irritation to the other side from that on which the lesion occurred.

A second point is this: that, however various the causes of hemiplegia, as regards its nature, seat and extent, the same group of symptoms usually occurs. No matter where the lesion be situated, in most cases, after recovery from the first symptoms takes place, the patient has a much more complete paralysis of the arm than of the leg. There are, however,



exceptions. There are three muscles of the face coming to the angle of the mouth that are usually affected with paralysis in these cases. This is the typical form of paralysis in brain disease, and we usually find it the same no matter what the nature, seat, or extent of the lesion. These facts, then, form a strong argument against the view that paralysis depends on a loss or destruction of either the centres of will for the muscles involved, or of the conductors. If such were the case, we should be obliged to admit that the centres are located in different places in different individuals. The almost uniform type of hemiplegia exists with a very great variety of diseases. A third point is, that in a minority of cases a great variety may exist according to the seat, nature and extent of the causal lesion. We may find the reverse of what is supposed to be true,—a paralysis appearing on the same side of the body as the lesion. On the other hand, there are some cases in harmony with the old view, but not in discord with the new one; and I am glad it is so, in order that there may be some excuse for the vast number of physicians who still adhere to it.

Again, as regards hemiplegia, it may appear and disappear although the lesion that produced it is constant. How can you reconcile the idea that paralysis is owing to the destruction of tissue, with the fact that, while the very same destruction persists, the paralysis disappears? You may say that there are changes in congestion and circulation taking place in the diseased portion of brain tissue, but suppose that both the frontal convolutions, supposed centres of motion for the arms, are entirely destroyed, even in these cases the paralysis may be intermittent. It may act in the same way as a malarial fever. Certainly in such a case the fact is a final death-blow to the old theory.

Hemiplegia can sometimes be cured, and sometimes it disappears suddenly of its own accord. In this fact, also, we have clear proof that we should set aside the old views that paralysis is due to a loss or destruction of centres or conductors.

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## CLINICAL LECTURE.

Delivered at the Hospital of the University of Pennsylvania,

BY

WILLIAM PEPPER, M. D.,

Professor of Clinical Medicine in the University Medical School.

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1. ALBUMINOID DEGENERATION OF THE LIVER.    2. ABDOMINAL TUMOR—ENLARGED SPLEEN.    3. FLOATING KIDNEY.
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### ALBUMINOID DEGENERATION OF THE LIVER.

I BRING before you to-day a young patient admitted to the wards on the 6th of October. The child had been coming to the dispensary for some months previous to that date. As you see it to-day, it is a desperately ill child. When admitted to the wards it was suffering from general *malaise*, with œdema, principally marked in the legs, but also noticeable in the arms and face. There was also a constant, draining diarrhœa. The urine has always been passed freely, and contains no

albumen or tube casts. The child has never had scarlet fever or measles, diseases which often give rise to affections of the kidneys. In consequence of the diarrœa, and general lack of tone in the circulation, I ordered the child placed on cod-liver-oil and digitalis, when it first came under my notice. Injections of iaborandi were also employed to relieve the dry skin and feverish condition of the patient. This treatment by iaborandi, contrary to my expectations, produced profuse diuresis, and no sweating. Let me call your attention to the constant discharge of urinous pus from both the child's ears. You also notice the crops of petechiæ under the skin of the body, arms and right leg. When these crops have come and gone, you see they have been followed by a slow desquamation. (Petechiæ are effusions of blood under the derma.)

The child has been given good, strong, nourishing food, and, as medicines, iron, quinia and arsenic have been employed. In spite of our care, however, the little patient is rapidly sinking, and I fear will not survive much longer.

Now what, let me ask you, is the nature of this case? There is no nephritis, for the most painstaking examination of the urine has failed to reveal any albumen, or tube-casts. The idea of scurvy or inanition is put out of the question by the fact that the child has been under fair circumstances and careful nourishment for the past six weeks, and yet has been constantly getting worse. I find no cardiac and no pulmonary disease, but percussion shows me that the liver is enormously enlarged, its lowermost point reaching to the middle line of the belly, about half an inch above the umbilicus. The surface of the organ is smooth, and pressure over it gives rise to no pain. I can discover no enlargement of the spleen.

Now, it is well known that albuminoid degeneration of the liver very frequently follows purulent otorrhœa, and is attended with just such a scrofulous cachexia as we find here. I must add that it is very unusual to find albuminoid degeneration limited to one organ, as in this case, but for all I know, the disease may have already begun to affect other organs. We generally date albuminoid degeneration of the kidneys from the appearance of albumen in the urine, and degeneration of the gastro-intestinal mucous membrane from the presence of blood in the stools. Neither of these symptoms, as I told you, has yet appeared.

The usual symptoms of albuminoid degeneration may be briefly mentioned, as follows: progressive gradual failure of health; marked anæmic and scrofulous cachexia; loss of flesh and strength; degeneration of the walls of the small blood-vessels, followed by hemorrhages under the skin, producing petechiæ, a general predisposition to leakage of serum and blood-disks from the blood-vessels, bringing on hæmatemesis and bloody stools, with general anasarca. When the kidneys are involved, the symptoms of dropsy develop very rapidly. When, as in the present case, the liver is chiefly affected, there is usually marked abdominal dropsy. As the patient grows weaker, the mass of the blood goes down, and with it the dropsy. You see how true this statement is shown to be in the present case. Some weeks ago there was very marked anasarca; now



The child, though stupid, has never developed any wandering squint, either divergent or convergent, so I am pretty safe in saying that there is no specific brain disease, though there may be, and probably is, passive effusion into the ventricles.

Purulent otorrhoea is generally the result of specific fevers, which give rise to inflammation of the throat and ear, and perforation of the tympanum. This child has never had any specific fever, and so we must seek a cause elsewhere. Disease of the bones of the inner ear very frequently follows syphilis and scrofula. There are no fissures in the child's lips, and the teeth are well shaped, showing none of Hutchinson's notches on the incisors. We must consider, however, that we are examining a primary set of teeth, and that these syphilitic signs rarely show themselves before the development of the second set of teeth. I can find out but little concerning the child's parents. There, probably, has been syphilis in the family.

Despite the best treatment, and most watchful care, the little thing is very rapidly sinking and will soon be beyond the sphere of our remedies.

#### ABDOMINAL TUMOR—ENLARGED SPLEEN.

This little boy is 11 years old, and was admitted into the hospital two days ago. He tells me that he had chills and fever some years since, and that the fever has never left him entirely. Upon examination of the abdomen I find that it is very much enlarged on the left side. When the boy expires the right side sinks in more than the left. I cannot elicit any fluctuation upon palpation. Percussion shows resonance all over the lower part of the belly, down to the pubis. The percussion is quite dull over the left hypochondrium, as compared with the right. There is evidently a hard body extending down as far as the level of the umbilicus. This tumor is six inches long, and four inches and a half in its greatest transverse diameter. Its edges can be distinctly felt by the finger. It is a solid mass, with a rounded edge, and is, to a certain extent, movable. The position of this mass suggests the spleen: it has the general shape and rounded edge of the spleen. This identification is confirmed by the history of the case. The spleen is very often enlarged as the result of malarial poison. The enlargement of the spleen from this cause may be truly enormous. I have a specimen of an enlarged spleen weighing fully eleven pounds. Such spleens fill at least two-thirds of the cavity of the abdomen.

In enlargement of this organ from malarial causes, dissection shows congestion and hypertrophy of the pulp of the spleen, with thickening of the trabeculae and fibrous elements.

We find no difficulty in the diagnosis of such cases. What are their results? These differ very much according to the state of the blood. Serious obstruction of the venous circulation will produce very pronounced anaemia and cachexia, with tendency to abdominal dropsy. The serious distension of the vessels causes leakage of blood, and hemorrhage from the bowels and stomach. There is a painful sense of weight and dragging. If there is any peritonitis, there may be local tenderness.

In the treatment of an enlarged spleen, our first effort must be directed

to the removal of the patient from the malarial locality, and the use of good hygienic influences. As regards tonic medicines, iron, arsenic and quinia, are the most valuable. The bowels should be kept in condition by saline mineral waters, with an occasional mercurial. As alteratives, the biniodide of mercury and the iodide of potassium, in minute doses, will often be followed by a decided reduction in the size of the spleen. Mercurial ointment, applied locally, is occasionally of value. Ergot may be injected, hypodermically; in the region of the spleen some have even injected ergot into the substance of the enlarged viscus. This latter process I consider dangerous (1), because there might be a loop of intestine caught up by the spleen; (2) because such an injection might be followed by a serious local abscess, and (3) because I think that an injection under the skin answers the purpose just as thoroughly. We use here an injection containing 96 grains of ergot to the half-pint of glycerine and distilled water (and one drachm of glycerine and seven ounces of distilled water.) This gives one grain of ergot to each five minims of the solution. In the case of a child five minims may be injected. In that of an adult ten to fifteen minims, every two or three days.

#### FLOATING KIDNEY.

This patient is a rather stout, sallow-complexioned woman, of fifty-four. She has all her life been troubled with obstinate constipation. One day about two months ago, she suddenly noticed a tumor under her ribs, on the right side. This tumor would come and go. It gave her no pain, and has been attended with no symptoms of any kind. Her belly has always been large, but this is due to relaxation of the abdominal walls. The tumor which I am now able to grasp in my hand, is small, hard and kidney-shaped. It is very movable; can be pushed a considerable distance. Upon pressure it sinks deeper and deeper into the cavity of the abdomen. I believe this tumor to be the woman's right kidney. Her general health is too good to suppose the case one of malignant disease; and furthermore, there is no obstruction to any part of the intestinal canal. The tumor is not the seat of any pain, and came on very suddenly. Its shape and size are exactly those of the kidney. When I percuss in the right renal region I get resonance in place of dulness. This last fixes the diagnosis.

There is no treatment in such a case. You can only assure the woman that it is not any diseased growth. In some cases a truss may be worn. This accidental displacement of this organ is probably the result of a sudden strain, while the kidney attachments were relaxed.



## HOSPITAL RECORDS.

## ROOSEVELT HOSPITAL, NEW YORK.

Reported by ETIEN EVETZKY, M. D., House Physician.

## CHRONIC DYSENTERY, AND ABSCESS OF LIVER. (SERVICE OF WM. H. DRAPER.)

WILLIAM MORTON, aged 42,—Ireland,—married,—laborer,—admitted June 5th, 1877.

*Previous history.*—Family history good. Temperate habits now, but previous to ten years ago was a hard drinker. Never had rheumatism; denies syphilis. Had ship fever twenty-five years ago and was attacked with pneumonia nine years ago. Since then was in perfect health, up to ten months ago, when he was in Norfolk, Virginia. At that time his bowels were costive; he was taken with griping pains in his abdomen and had several evacuations from the bowels, and on examination he found the stools contained some blood. This has continued up till now, without intermission, excepting that on some days there would be a decrease in the number of passages. At present he has from six to seven passages per day, containing mucus, blood, and very little solid material; has a great deal of tenesmus for past four months; has vomited a great deal in the morning, vomited matter being of a greenish color, but has not vomited for last five or six days. Patient has no cough, no pain in chest, no night sweats. Never expectorated any blood, and expectorates very little. Has headache occasionally.

*Present condition.*—Fairly nourished, appetite poor, tongue coated, moist. Pulse 104 temp. 99°. Urine acid, 1029 urates.

Examined by Dr. Draper. *Liver*, dullness extends two inches below free border of ribs. *Lungs*, some dullness under left clavicle and left supraspinous fossa, but no modification of respiratory or vocal sounds.

Patient was put on

Magn. sulph. dr. ij.  
Ferri. sulph. grs. ij.  
Ac. sulph. dil. M. xx.  
Aq. ad. oz. iv. M. Sig. every morning,

and quin. sulph. grs. vj. t. i. d.

Patient's condition gradually began to improve, and since June 15th he did not pass any more blood, only mucus; tenesmus and griping remaining; number of passages from five to eight a day.

July 1st.—Dr. Thomson visiting. Previous medicines stopped.

Ordered:

℞

Cupri. sulph. gr. ½  
Rezin. terebint gr. iij. in pil. t. i. d.

also an injection containing laudanum gtt. x. and borax gr. xx.

Patient's condition remained about the same till July 18th, when he

began to have pain in abdomen, more on right side; this was gradually getting worse.

*July 20th*.—He vomited a number of times.

*July 20th*.—Region of ascending colon was ordered to be painted with vesicating collodion.

*July 30th*.—Pain became very severe, and a swelling hard, tender and dull, on percussion, appeared under free border of ribs on right side, swelling evidently connected with liver. Patient became a little feverish, no chill. Ordered poultices and quin. gr. vj t. i. d.

*August 1st*.—Dr. Delafield visiting. Examined liver. Dulness extends to three inches below free border of ribs. Probably abscess of liver. Pain became less severe. Bowels became costive, and injections of ox-gall were ordered to be given every few days. Temperature did not rise very high. Swelling was gradually increasing in size.

*August 7th*.—Liver dulness extended from sixth rib to one inch above Poupart's ligament, and within one inch of umbilicus. Patient began to complain of numbness and pain in right buttock and thigh, and shooting pain running down in right groin, with some swelling.

*August 12th*.—Pain began to increase, and

*August 14th*, patient complained of dyspnoea.

*August 17th*.—Over a portion of swelling, which by this time increased considerably, fluctuation could be detected. Superficial abdominal veins became enlarged; right leg became swollen. Patient occasionally vomited. A hypodermic was introduced in the tumor, and pus and blood mixed was withdrawn. Then an incision about two inches long was made in right lumbar region, and about 90 ounces of a dark and bloodstained pus escaped, causing considerable decrease in the size of the tumor; pus had bad odor. Patient experienced immediate relief, and feeling of pain and numbness in thigh and groin disappeared. A drainage-tube was then introduced into the cavity, which ran in an upward, inward, and backward direction, and wound covered with a carbolic acid dressing.

*August 19th*.—Swelling again began to increase, more pain. Drainage-tube removed. Poultices applied.

*August 21st*.—Tumor was steadily increasing. To-day, during an effort to get up, patient experienced something giving way, and about 60 ounces of pus escaped from the wound. Previous to that, discharge from it was scanty, but since discharge was considerable. Swelling collapsed. Patient was very much relieved. Poultice continued. From that day patient began to improve, but bowels remained costive, kept regular by means of injection.

*August 27th*.—Cavity was ordered to be washed out three times a day by means of irrigator, with a solution of grs. viij. Chloride of zinc to Oj of water. Discharge began to decrease; general health steadily improving.

*Sept. 10th*.—Opening was dilated with a sponge-tent, as it was closing up.

*Sept. 18th*.—Patient was allowed to sit up. Gaining flesh and strength. Temperature in the morning normal, and evening seldom above 99°.



*Sept. 23d.*—Opening dilated with a sponge-tent, very little discharge.

*Sept. 30th.*—A drainage-tube introduced to keep opening from closing up. Probe passes three inches. Bowels become loose, ordered :

*R*

Ferri Pernit gr. i

Ext. opii. gr.  $\frac{1}{2}$  in pil. t. i. d.

*Oct. 8th.*—Opening was closing up. Sinus was dilated by means of urethral sounds, and tracheotomy-tube inserted, as rubber tubing was irritating. Patient is troubled with diarrhœa for last few days. General health improving rapidly. Discharge from sinus scanty.

*Oct. 16th.*—Pain in abdomen and rectum; passes mucus from bowels; some tenesmus. Sinus measures about two inches.

*Nov. 12th.*—No improvement in dysentery. Discharge from sinus almost ceased.

*Dec. 1st.*—No discharge from sinus; it measured about one and a half inches. Rectal injections of one drachm of iodoform to one ounce of glycerine twice a day.

*Dec. 5th.*—Passages only two to three a day. No tenesmus; no blood since injections of iodoform; only a little of mucus.

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## PERISCOPE.

### COLLABORATORS.

*Dermatology.*—HENRY G. PIFFARD, M.D., Professor of Dermatology in the University of New York.

*Diseases of the Nervous System*—EDWARD C. SEGUIN, M.D., Professor of Diseases of the Nervous System in the College of Physicians and Surgeons, New York.

*Diseases of Women and Children.*—FRANK P. FOSTER, M.D., Gynecologist to the New York Hospital Out-door Department.

*General Surgery.*—EDWARD J. BERMINGHAM, M.D., Surgeon to Bellevue Hospital Out-door Department.

*Genito-Urinary Diseases and Syphilis.*—ROBERT W. TAYLOR, M.D., Professor of Dermatology in the University of Vermont.

*Ophthalmology and Otology.*—S. B. ST. JOHN, M.D., Assistant Surgeon to the New York Eye and Ear Infirmary.

*Orthopedic Surgery.*—NEWTON M. SHAFFER, M.D., Surgeon to the New York Orthopedic Dispensary and Hospital.

*Practical Medicine.*—E. DARWIN HUDSON, JR., M.D., Professor of Practice of Medicine, Woman's Medical College, New York.

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## ARSENICAL ATMOSPHERE AND THE ARSENICAL HOT SPRING OF POZZUOLI (NEAR NAPLES), IN THE CURE OF CONSUMPTIVES.

BY

DR. HORATIO R. STORER (*London Lancet*, Sept. 29th, 1877).

THE writer for four years has investigated the relative curative value of the various health resorts of Central and Southern Europe. Pozzuoli, a short distance from Naples, is well sheltered, with a southern exposure. The atmosphere of the place is charged with sulphurous and arsenical exhalations from the adjacent semi-extinct

crater known as the Solfatara, and the springs from the sides of the crater respond definitely to Marsh's test for arsenic. The Italian physicians, at Naples, had long claimed positive curative results from the arsenic in air and water, and Dr. Storer cites repeated cases, carefully watched, which confirm him in the same view. An English hotel for invalids is now established at Pozzuoli, and the council of the Hospital for Incurables, at Naples, has ordered the building of a branch hospital within the crater.

E. D. H., JR.

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### SALICYLATE OF SODA IN ACUTE RHEUMATISM AND OTHER FEBRILE DISEASES.

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OTTINGER (*Wiener Med. Presse*, 1877, No. 34) has employed salicylate of soda in 38 cases, viz.: tuberculosis, 3; intermittent fever, 2; typhus, 2; pneumonia, 1; facial erysipelas, 1; rheumatism, 29. The amount given ranged from 90 to 150 grains per day. Almost always after the absorption of from 30 to 45 grains, there was redness of the face, mental excitement, followed usually by profuse sweating, buzzing in the ears, fulness, deafness and heaviness of the head. He had no case of extreme depression, and a less and briefer nausea than when using salicylic acid. Reduced temperature followed sweating, but he often secured the former without the sweating. The temperature was often reduced below the normal. He could detect the salicylate of soda in the urine, by perchloride of iron, three days after its absorption.

E. D. H., JR.

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### PATHOGENESIS OF XANTHOMA, OR YELLOW PATCHES OF THE SKIN.

BY

M. POTAIN, at Hôpital Necker (*Gazette des Hôpitaux*, 11th Oct., 1877).

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WITH several clinical illustrative cases, and as the result of long and careful observations of cases of xanthoma and cases of jaundice, with the associated symptoms antecedent, during and subsequent to the pigmentalism of the skin, the author concludes that, in all the cases of xanthoma, the liver is at fault, though bile is not necessarily the element which penetrates the skin. "Many cases are developed without the existence of jaundice. But the liver not only excretes bile, it has also an important function in hamatosis, contributing in a degree to the oxydation of the blood globules." M. Potain believes that all these cases of yellow cutaneous patches coexist with inactivity of the liver, and they become points of deposit of incompletely oxydized fatty matter. A further cutaneous manifestation, even more usual, is pruritus; although present in xanthoma, and intense in jaundice, it often long precedes them, or exists alone.

D. H. E., JR.



## CEPHALIC THERMOMETRY.

PROFESSOR P. BROCA, of Paris, read, on August 30th, at the last meeting of the French Association for the Advancement of Science, at Havre, a remarkable paper upon this subject. He reported experiments made by means of six thermometers: three applied symmetrically on the two sides of the head, one on the forehead, a second over the ear, and a third on the occipital region. The six thermometers were held in a sort of belt, which served to hold them in place, and to protect them from the external air. The belt was applied twenty minutes for each observation. A first series of observations were made to determine the normal average temperature of the six spots selected. The maximum "cerebral" temperature was found to be  $34^{\circ} 85$  C.; the minimum  $32^{\circ} 80$  C., and the mean  $33^{\circ} 82$  C. The left side of the head, during inaction, was always warmer than the right, by  $.1^{\circ}$  C. on the average. During mental activity the heat became equal on both sides. As regards the comparative heat of the three spots on each side, the frontal spot had an average temperature of  $35^{\circ} 28$  C.; the temporal spot of  $33^{\circ} 72$  C., and the occipital of  $33^{\circ} 92$  C. Intellectual labor caused an increase of nearly  $1^{\circ}$  C.

In two cases of embolism of the left sylvian artery (right hemiplegia and aphasia) the left side of the head was warmer (according to rule) than the right, except in the temporal region, where there was a difference of  $.5^{\circ}$  C. in favor of the right side. (*Progrès Médical*, No. 36, 1877.) [These researches are very suggestive, and it is to be hoped that they will be prosecuted by observers in this country with instruments like Broca's, or with Seguin's thermoscope or surface thermometer, or with Lombard's most delicate thermo-electric instrument. We understand that the last-named instrument is in use in this city, and we hope that those employing it will soon favor us with a report as to its practical value.

E. C. S.

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# THE HOSPITAL GAZETTE

AND

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EDITED BY

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## LECTURES.

### LECTURES ON PARALYSIS AND CONVULSIONS AS EFFECTS OF ORGANIC DISEASE OF THE BRAIN.

Delivered at Bellevue Hospital Medical College.

BY

C. E. BROWN-SEQUARD, M. D., ETC.

#### LECTURE IV.

GENTLEMEN:—In the last lecture, I attempted to give you facts that prove that a lesion on one side of the brain can produce the greatest variety of paralyses. You may perhaps think, therefore, that it is an extremely difficult matter to diagnosticate and to localize the lesion in brain disease. No doubt it is a most difficult matter, but I shall give you numerous facts which will enable you to do this with a certain degree of positiveness.

I had almost forgotten to mention a theory of Dr. Broadbent, of London, advanced to explain the difficulty in determining the seat of a lesion, which is the cause of paralysis. In most cases of hemiplegia

from brain disease the paralysis is limited to the arm, leg, and face. There are many parts of the body that escape paralysis, and these parts are generally the muscles of the trunk and neck, and the connecting muscles of the limbs—that is, those muscles which are attached on one side of the trunk, and on the other to the limbs. In the immense majority of cases of hemiplegia these muscles are exempt from the paralysis that affects the other muscles. Now Dr. Broadbent said that certain parts of our system depend for their power of motion on a centre at the lower part of the pons Varolii, or the upper part of the medulla oblongata. He admits that one part of the corpus restiformis is alone sufficient to move two sides of the body, and, therefore, these muscles escape on both sides, when one side only is diseased. This theory is true in a measure, but otherwise it is false, because he considered this portion of the gray matter as a centre for these muscles. The reality is that one part of the brain is sufficient for the whole body.

Now, from these facts, I will pass on to the consideration of the significance of certain symptoms by which we are enabled to locate the seat of a lesion that causes paralysis.

There is one fact that it is very important to understand fully. You very well know that there are a number of nerves arising from the base of the brain that serve for the various special senses, for tactile sensibility, and for motion also. Now we must make a distinction between cases of paralysis that depend on a disease which strikes at the place from which the nerve comes, that is, a lesion that strikes at the trunk or roots of origin of a nerve, and those cases in which the lesion is beyond the point of entrance of these nerves in the base of the brain. Take, for instance, a cell in the medulla oblongata which is connected with a motor nerve fibre. Now a disease anywhere between the cell and the periphery of the medulla, or over the position of the cell, destroys the fibre of the nerve, and also the cells from which it arises. It is the same as if the nerve were destroyed beyond its point of exit. But suppose the disease is situated beyond these cells, in a portion from which there are no nerve fibres arising. Here there is something completely different—the nerve fibres or roots are untouched. In these cases of paralysis which depend on the destruction both of cells which give rise to nerve fibres and the fibres, or that depend on the destruction of the fibres themselves, or depend on the lesions that strike the cells themselves, there is something different from those cases in which the lesion strikes those cells that are beyond the cells from which the fibres arise. In all that I said in the last lecture of paralysis of the eye, tongue, face, etc., I had reference only to disease of cells which are in connection with those nerves that supply the parts spoken of. When you have a disease striking at a nerve or its root before its origin from the base of the brain, the paralysis occurs on the same side as the disease, and this fact is very evident, for it is the same thing as if you divided the nerve itself in any part of its course.

In what I shall now have to say as regards the diagnosis and localization of cerebral disease, what I have said in reference to the difference that occurs when the disease is situated at a point where the cells give origin to the nerve fibres, or where it is located at a point beyond it, is of the very greatest importance.

For the sake of illustration, let us take a disease situated in the pons Varolii. In two cases, in one of which the disease is situated above the origin of the facial nerve, and in the other where the lesion is located at the root of the nerve, there will be a characteristic difference. In the second case, where the disease is on the root, or the cells of origin of the root of the nerve, the face will be affected on the same side as the lesion. In the former instance, if the disease is located elsewhere, beyond the cells of origin, the face will be affected on the opposite side.

Now as regards the limbs. As a rule, we find paralysis on the opposite side of the body from that on which the disease occurs. When a disease strikes the origin of a nerve the paralysis is on the same side. We find this true likewise in the case of all the nerves of the brain, whether or not they be nerves of motion. The olfactory, optic, or any other of them are similarly affected.

But to come now to the diagnosis of various cases of hemiplegia. We will first point out the differences that exist before coming to the points concerning particular locations. Disease of the upper part of the spinal cord, as well as of the brain itself, can produce hemiplegia. Take two individuals who are suddenly struck down with loss of consciousness and some trace of convulsions. After recovery from the first symptoms you find that there is paralysis in one-half of the body. Suppose it to be the right half of the body in both cases. One of these individuals makes a grimace on the opposite side of the face, and you might consider that the disease is on the same side. (This point has not been mentioned in any of the text-books, and has been noticed only by myself.) If you pay attention only to the paralysis on the left side of the face and the right side of the body, you will be led to believe that the lesion is situated in the brain. You might, however, be seriously mistaken, because a lesion of one-half of the spinal cord, near the medulla oblongata, can produce all of these symptoms.

In many cases the side that seems to be paralyzed is not really the paralyzed side. In fact there may be no paralysis at all. The appearance of paralysis may come from the fact that a spasmodic state of the muscles exists. In certain cases of spinal hemiplegia the disease is limited to one-half of the cord. In these cases you will find features that make this form of paralysis distinguishable from those cases of paralysis that are due to disease of the brain, putting aside only two or three cases that I know of. If you examine the patient carefully you will find, if the lesion be on the right side, paralysis of the two right limbs. There is no diminution of sensibility, but, on the contrary, a very considerable increase of sensibility, as measured by the æsthesiometer—the compasses of Weber, modified. Instead of



only being able to detect the two points of the instrument at a distance of three lines from each other on the palm of the hand, which is the normal distance in that location, the patient may be able to appreciate the two distinct points when they are nearer to each other. This hyperæsthesia may be very great.

In the case of Charles Sumner, who was struck down on the floor of the Senate Chamber, the back part of the spine was injured. On the back part of the neck he could recognize the two distinct points when they were almost touching. In the spinal region, in the normal condition, the points of the instrument must be two inches apart in order to be recognized distinctly. There is, then, considerable hyperæsthesia; in other words, the normal sensibility is very much increased in spinal hemiplegia.

Besides the abnormal increase of the tactile sensibility, the sensation of pain is also much greater. In some cases a slight touch may be so painful as to cause the patient actually to scream. There is likewise an increase in the power of detecting temperature, the patient, often, not being able to bear the contact of anything hot or cold, the pain produced is so great. There is likewise increase of the power to recognize the sensation of tickling.

Another feature is that the muscular sense is not impaired. Indeed, when the patient recovers a little, he will know where the limb is, without first having to put his hand on it to feel.

On the side opposite to the disease there may be a great loss of sensibility.

As regards the temperature of the parts there is another important feature. The surface is very much warmer on that side on which the muscles are paralyzed. There is an increased temperature on the side of the paralysis and a diminished thermometric height on the opposite side. You will likewise find the face warmer on the side of the lesion. You get the same results as if the fibres of the sympathetic nerve are divided on that side of the cord. There will be great redness of the face, of the eye, and of the ear.

The pupil of the eye is also dilated on the same side. This effect follows galvanism of the sympathetic nerve of the head. The muscles are contracted simply because of the increased afflux of blood to the parts. The effects do not depend upon a changed condition of nervous centres, but upon a greater tonicity of the muscles, which results from their increased supply of blood. In localizing the lesion in these cases, besides this positive evidence, we have the fact that a great many other symptoms that are present when there is disease of the base of the brain do not exist.

In a case of disease of one-half of the spinal cord there is usually a feeling of stricture on one-half of the body at the level of the lesion in the cord. A lesion in the spinal cord, although it may destroy a great deal of tissue in its vicinity, only alters some of the sensitive roots in its neighborhood in such a way that hyperæsthesia is produced. The body is thus separated into three zones—two of hyper-

æsthesia and one of anæsthesia. There is nothing at all of this kind in disease of the base of the brain; so you see that the diagnosis can be made very easily in this way.

When the disease is situated in the medulla oblongata or pons Varolii, the general symptoms are extremely interesting. It is very necessary to be able to diagnose clearly the exact seat of the lesion in such a case, for the prognosis depends altogether upon the diagnosis, and the means of treatment to be employed in all cases are not the same, but must vary according to the seat in the base of the brain. The chief point is this, that the nerves implicated show the locality in which the disease is situated. Suppose that the crus cerebri, pons Varolii, and medulla oblongata are destroyed; in other words, almost the whole of the base of the brain, behind the optic bands. You then find that all the nerves that take origin here are more or less implicated. If you know what these nerves are, you can readily understand the results that are produced. When the third pair are involved you find the effect in a change in the motor power of the eye. The ball cannot be moved upward, downward, or inward. The effects are very complex, but they are in harmony with what we know of the function of these nerves.

The paralysis, instead of being on the same side, is on the opposite side in the limbs, and the loss of sensation appears where the loss of motion exists. In disease of the spinal cord you will recollect that I said that there was no anæsthesia on the affected side, but, on the other hand, a hyperæsthetic condition. Here there is a loss of feeling on the same side as the loss of motion.

The urinary secretion is disturbed. It is increased immensely in amount, with or without the presence of sugar. You know there are two kinds of diabetes. Diabetes insipidus, which consists in the excretion of a very large quantity of urine, which, however, does not contain sugar, and a second variety, termed mellitic diabetes, in which the urine contains sugar. These two forms are very common in cases of disease of the whole base of the brain, and may exist in disease of any part of the brain, but are never present in disease of the spinal cord.

I showed in a previous lecture how a lesion of the pons Varolii or medulla affects the lungs, almost in every instance and at once, in animals, and likewise very frequently in man. One of the first effects of such a lesion is to produce a considerable congestion of the lungs. In disease of the pons Varolii, in that portion just where the crus cerebri enters it, we often have a hæmorrhage of the lungs, sometimes slight in amount, but often sufficient to cause death. This pulmonary hæmorrhage may occur in connection with a hæmorrhage at the base of the brain, and some have supposed both lesions to be due to the same cause.

Charcot and Bouchard discovered that cerebral hæmorrhage almost always occurs as the result of the rupture of an aneurism. Very frequently in persons past fifty years of age the walls of the arteries en-



large, and as there is no thickening, but, on the contrary, a thinning, the walls break, and the hæmorrhage is almost invariably due to this cause. As it has been found that sometimes the veins of the lungs are in the same condition, it was thought that a hæmorrhage in those organs depended on the same causes, and was coincident. It is so perhaps sometimes, but when a hæmorrhage in the lungs follows quickly after a lesion in the brain, the latter is the cause of the former, perhaps by changing the circulation.

I have found that the pulmonary hæmorrhage depends on the following cause. Suppose the capillaries of the lungs are congested, contraction takes place in both the veins and arteries. The capillaries are then very much distended by the stagnant blood, they break, and you get the hæmorrhage. This is one of the frequent causes of death in disease of the pons Varolii, and it is a cause that has been altogether too insufficiently noticed, and, unfortunately, when people die from disease of the brain, the lungs are not properly examined. This is reprehensible, because many changes may take place in the lungs in consequence of brain disease, and they probably do in about one case out of every ten. First, there may be an active congestion, and then an inflammation. Foci of inflammation are frequently found in cases of disease of the brain. As the patient has always most difficulty and danger from his brain disease, the lesion in the lungs is overlooked, and proper local treatment is not applied. I have not the slightest doubt that a great many cases of death are due not to disease of the brain, but to subsequent disease in the lungs, which has passed entirely unnoticed.

Now another effect of very great interest can take place in disease of this portion of the base. The par vagum originates in the medulla oblongata. When the nerve is galvanized a stoppage in the heart's action is produced. The bearing of this fact is obvious. A lesion in this situation produces irritation of the par vagum and consequent diminution of the beating of the heart. This may be slight, or sufficient in itself to produce death. In many cases of disease of the bones in this neighborhood we have pressure on the par vagum which is sufficient to cause stoppage of the heart. The beating is diminished in force, but not in frequency, until finally the force of the contractions is lost entirely.

The œsophagus, pharynx, and larynx all receive their nervous filaments from the pneumogastric nerve, and when there is irritation in its origin there may be spasm of all these parts. In a case that I shall always remember, of a very dear friend of mine, there was intense spasm of the œsophagus. During the eight days that he survived from the commencement of his illness it was impossible to get anything whatever into his stomach—impossible even to introduce a tube, the spasm was so great. We injected pancreas and beef into the rectum, and in this way managed to nourish him during the time he lived. I may say, in passing, that this is the very best method of feeding a patient when we cannot get the food into the stomach. In



the case I have mentioned life was prolonged for eight days without the slightest diminution in the weight of the body—without any wasting away or emaciation.

A disease pressing on the origin of the trigeminal nerves may be very easily diagnosticated by the changes produced in the state of the cornea. This membrane becomes inflamed, and, after a time, ulcerated. Magendie showed long ago that when the fifth pair was divided an alteration of nutrition was produced and the cornea entirely destroyed in a short time. He demonstrated also that all the senses were impaired, and he concluded that this nerve was concerned in all the special senses. He never would have drawn this conclusion if he had known the difference between loss of function produced by irritation and loss of function caused in a direct way. The nutrition of the organs of special sense is altered by an injury to the trigeminal nerve, and this fact is borne out by an abundance of other facts. A blow on the frontal nerve, or on another branch of the fifth nerve, may produce a total loss of sight. We do not conclude that it is therefore the nerve of sight. This result must take place through a reflex action, an irritation starting back from the seat of injury, and propagated again to the blood-vessels, thus materially altering the nutrition.

A disease in the optic thalamus, a part of the brain far removed from the origin of the trigeminus, can produce the same effect as division of the nerve itself. There is, therefore, nothing essentially belonging in a direct way to the trigeminal nerve, as regards vision, when it is diseased.

When there is a loss of feeling in the face on one side, and a loss of the senses, and of the cornea on the same side, the lesion that produces them is on the same side of the brain.

Some ten years ago a patient consulted me, in Boston, who had paralysis of the limbs on one side of the body, with paralysis on the same side of the face, and I concluded that the lesion was situated in the pons Varolii on the same side. A short time afterwards he died, and at the autopsy the lesion was found in the spot indicated. The diagnosis was made from a consideration of the symptoms that appeared in the face. A disease in the pons Varolii may produce paralysis on the same or on the opposite side of the body, together with symptoms in the face on the same side as the lesion. Thus you see we are enabled to localize the lesion, and it does not always cause alternate paralysis.

You may also have a lesion in that part of the brain at the origin of the trigeminus without paralysis of the limbs. In such a case you might think that the trigeminal nerve alone was affected, that the lesion was limited entirely to it, but this is not necessarily the case, as a great part of the pons Varolii may be destroyed without any paralysis, except of the nerves arising there. In a case reported by Prof. Stanley, of St. Bartholomew's Hospital, London, there was a very extensive lesion of the pons Varolii and paralysis on the same side of the face only, and the eye was destroyed.

Another feature that we find present in cases of disease of the brain is, that instead of anæsthesia, you may have hyperæsthesia in the paralyzed limbs.

Sometimes you will find a remarkable absence of symptoms. Convulsions may be produced by irritation of the pons in animals, but it is not so in man. You get convulsions with least frequency in disease of this part of the brain.

Near the pons Varolii there is a portion of the brain that connects it with the cerebellum, called the crus cerebelli. Disease in this part may produce a rotatory movement round the main axis of the body, or cause progression in a circle. However, such a movement is not specially limited to disease of this part, as a lesion in other parts may cause it as well.

If we now ascend and place our attention on the crus cerebri, the diagnosis of a case of hemiplegia depends on the facts that follow. The paralysis, as I have so frequently observed, may appear on the same or on the opposite side of the body, usually, however, on the opposite side. There are two well authenticated cases reported, that I know of, where it appeared on the same side. The crus cerebri has been considered as the only bond of union between the will power and the conductors in the production of voluntary motion and the perception of sensation. You should have, consequently, in disease of this part, anæsthesia and paralysis on the opposite side of the body. But this is absolutely false. Thirteen cases of disease limited to this part of the brain have been pretty well studied, in which no such facts were seen. Cases of complete paralysis are few, and of complete anæsthesia are very rare indeed. So little is the old view true in these cases that there are ten in number of them in which there was no paralysis at all, though the whole mass of the crus was destroyed. These are extremely clear cases, that show that one crus is sufficient for the transmission of voluntary motion and sensibility.

I have said that in these cases paralysis seemed not to exist at all. It is possible that in the future there may be other means employed to discover paralysis. If a man can walk and stand, and can grasp firmly, you are inclined to think that there is no paralysis. I have frequently said, in the course of my remarks, that in many cases of disease in certain portions of the brain there is no paralysis. I must say, however, that it is my belief that, if we studied these cases more carefully, we should find paralysis more or less marked.

I here show you an instrument, invented by a friend of mine, which enables us to detect paralysis more accurately in parts that we could not determine the power of so well before its introduction. It consists of two bars fastened on each end to a leg, and the legs coming from each side cross each other in the same manner as the legs of a saw-buck. At the intersection on each side is a spring with a scale and an index. By approximation of the two bars we get a measure of the force of the muscles employed in pressing them together. By this instrument we can measure the strength of the foot by placing it



on the floor and pressing the uppermost side. In the same way the power of the muscles of the leg may be determined. Also, if we place it in the bend of the knee and make the patient bend his leg backwards, we can ascertain the strength of these muscles. In this way we can find if there be any loss of power, or if there be any difference between the two sides. So it may be applied to the bend of the elbow, the axilla, the hand, and other parts of the body. This instrument shows the relative strength of the two limbs, or of analogous parts on the two sides, in a very perfect manner, and was invented by a friend of mine, who is now dead. Almost any part of the body may be thus tested by its means.

If we do not measure the force of the muscles of a patient suffering from brain disease with great care we cannot tell accurately the degree of paralysis that is present. Therefore, when I say that there are cases of marked destruction of the *crus cerebri*, or of any other part of the brain, without paralysis, I simply mean that paralysis has not been recognized and recorded. But I believe that there is always some paralysis, which we have not as yet adequate means of determining.

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## CLINICAL LECTURE.

Delivered in the Hospital of the University of Pennsylvania.

BY

HORATIO C. WOOD, Jr., M. D.,

Professor of Materia Medica and Therapeutics and Clinical Professor of Nervous Diseases in the University of Pennsylvania.

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### I. MULTIPLE SCLEROSIS. II. WRITER'S PALSY.

**MULTIPLE SCLEROSIS.**—Sclerosis is a chronic inflammation of the neuroglia. Multiple sclerosis occurs in little spots, or nodules, and may affect the brain alone, or the spinal cord alone, or both brain and cord. There are consequently three forms of multiple sclerosis, cerebral, spinal, and cerebro-spinal. Multiple cerebral sclerosis is comparatively rare, and its symptoms very obscure. It usually begins with severe, irregular pains in the head; paralysis and tremors, with epileptiform attacks and marked mental deterioration, failure of memory, etc. The most common symptoms are loss of power with tremors. The severer symptoms are only marked in rare cases. In multiple cerebro-spinal sclerosis, the tremors are at first only excited by voluntary movement, but finally they become persistent. Where the spine only is affected, according to some authorities, there are no tremors. Where the brain only is affected, the tremors are constant. In all three forms there is always palsy; incomplete, at first, but gradually producing entire loss of power. In the spinal form, the palsy is the main symptom. In many cases there are periodic convulsive movements of the limbs. In multiple spinal sclerosis, the symptoms become more and more severe, finally bringing on tonic



contraction of the muscles of the hands and legs. These cases, though exceedingly obscure, will very frequently come under your notice. Multiple spinal sclerosis, I will add, may affect either the anterior, or posterior columns of the cord. I am able to present to your notice, to-day, two cases illustrating two of the different forms of sclerosis.

CASE I.—R. Mc., born in Ireland, dates the beginning of his disease back to 1875, when he overstrained his wrist in piling bricks. Immediately after that time, the part began to tremble, and in one year the whole limb was involved. He was admitted to the hospital last March. A few months ago the tremors extended to his whole body. These tremors are constant, and are very much aggravated by any excitement, or the least physical exertion. In this case there was palsy of the right arm before the appearance of the tremors. This order, however, is very frequently reversed. The patient usually has a bad headache when he gets up in the morning, and is very easily fatigued. There is no failure of memory, as yet, and his eyesight is not affected. In some cases there is constant twitching of the eyelids. I cannot say positively whether or not this man has tremors while asleep. He has no difficulty in walking up and down stairs; can go down stairs without the assistance of the banister. There is no *festination* in this case.

CASE II.—A sailor, of middle age, German by birth. Has had syphilis and gonorrhoea frequently. The tremors in this man are only excited by physical exertion, such as walking, etc. The patient has no headache and no pain. In neither of these cases has there been at any time trouble with the bladder. This man has *festination* very markedly. He says he feels as if some one were constantly pushing him forward as he walks; he has a continual, irresistible tendency to go forward until he gets into a regular run. He can go up stairs alone, but in going down stairs he has to take hold of the banisters to keep himself from falling.

*Case I* is an example of multiple cerebral sclerosis in which the tremors are constant. *Case II* is one of multiple cerebro-spinal sclerosis. The last case presents some of the symptoms of locomotor ataxia, but it is not an instance of that disease.

The etiology of the multiple sclerosis is exceedingly obscure. In some instances they have been brought on by exposure to wet and cold. Thus in *Case II* we are given to understand that the man first noticed the tremors one very rough day at sea, when he was in the rigging. In many reported cases the inception of the disorder dated back to some mental strain or overwork. I have never heard of a case of paralysis agitans produced by syphilis. It is easy to see, however, how it might have such a cause. [The paralysis agitans of Dr. Hammond is not what is generally understood by this name, but is a form of local chorea.]

As regards treatment, very little can be done in the severer forms, as in *Case I*. In fact, nothing can be done in true cases of the affec-

tion. Dr. Hammond claims some good results from the administration of fifteen drops of the chloride of barium thrice daily. He also advises the use of the tincture of hyoscyamus; but neither of these remedies have had any effect whatsoever in my hands. The galvanic current may be employed, but usually fails utterly to produce any good.

#### WRITER'S PALSY.

The patient is a book-keeper by profession, and has been in the habit of writing twelve hours a day for four days in the week. The first warning of the palsy occurred about six months ago. His hand would get tired easily when writing; there was no pain in the arm at first, but a very marked cramp in the wrist and difficulty in bringing the fingers together to hold the pen. The thumb could not be put against the forefinger. The man has not lost his power of grasp at all, except, perhaps, in the right index finger.

Writer's cramp is a disease affecting book-keepers, merchants, and savants; in fact, all those who write excessively. The disease has two forms—the spasmodic and the paralytic. In the spasmodic variety the spasm may be either clonic or tonic. Most of the cases which come under our notice are paralytic. When there is spasm the pen is grasped so firmly that the writer finds difficulty in freeing his fingers. Writer's cramp, though common in men, is comparatively rare in women. The reasons for this are plain, since men do much more writing than women as a general thing. In the paralytic form there is usually pain in the hand and shooting pains in the arm.

What are the causes and pathology of writer's cramp? All of you know how difficult it is for the child to learn to write. This shows that the movements of writing are very delicate, and require an excessive amount of coordination. The chief muscles concerned in writing are the flexors of the thumb and index finger, and the flexors of the hand. In the process of writing these muscles execute an immense number of very delicate muscular contractions. All these facts necessitate an infinite strain upon the coordinating apparatus. When a child is learning to write, it is learning to train its coordinating apparatus. The will power, in writing, runs over certain paths of coordination. Usually those paths are open and easy. The cerebral centers, the paths of coordination, the muscular sense, and the motor tracts are all concerned in the act of writing.

Where is the palsy located in the paralytic form? It is originally in the paths of coordination. Through overuse some of these paths are injured, and so rendered no longer permeable to the will power. Thus there is a partial palsy. In the spasmodic form some of the paths are blocked up and some are not, and those which are blocked up receive more impulse than they can bear, and spasm is produced. In some cases there is disorder of the muscular sense, no doubt—the centres persist in sending out too strong an impulse, the muscular sense being vitiated, and so spasm occurs. There is some loss of muscular sense in the case of this patient.

As regards treatment, the first thing to be done is to stop all the patient's writing at once, and enjoin absolute rest for the arm, and so for the coordinating apparatus. Rest is the main part of the treatment. Even with complete rest, the prognosis is unfavorable when the disease has gone on far. A little overuse, indeed, will at any time bring on all the trouble anew.

Medicinal treatment is twofold—(1) prophylactic, and (2) direct. Under the first head comes complete rest so far as possible. If the patient relies entirely for support upon his writing he may obtain rest by making use of a printing machine. It is always best for those liable to have writer's palsy to write with a broad-pointed pen. Quill pens are less likely to cause cramp than steel pens. When writing with a sharp pen and making delicate lines, coordination is, of course, more difficult. A thick, blunt pencil is very safe for those threatened with cramp. Some relief may be had by using a thick pen-holder. In cases of this kind, it has been recommended that all writing be done with a ball fastened to the pen-holder and held in the hollow of the hand. This does away with all delicate movements of coordination and relegates all motion to the wrist. The ball is very useful where only the fingers are affected.

If the system has run down tonics are indicated. They have, however, but slight effect upon the disease. Some have recommended the use of the constant current with the positive pole at the nape of the neck and a sponge in the palm; but I have never seen much good come of it. So, too, with manipulation and hypodermic injections of strychnia in the paralytic form; they are of but little value.

The best treatment is total abstinence from writing. If the patient attempt to force the movements of writing the whole body may be affected, causing loss of all coordinating power and a general breaking down of the nervous centres.



## ORIGINAL ARTICLES.

A HITHERTO UNRECOGNIZED SYMPTOM OF ISCHIATIC  
DISLOCATION OF THE HEAD OF THE FEMUR.

BY

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Most writers describe the symptoms of dislocation into the ischiatic notch as differing from those of the iliac in degree alone, there being in the former less shortening, less inversion, less adduction, less flexion. Syme, some years ago, called attention to the arched position of the spine, when, the patient being recumbent, the dislocated limb is pressed upon a flat surface. He insists that this is characteristic, that there is no injury of the hip joint, "whether fracture, dislocation, or bruise," which gives this sign. In this he is certainly mistaken, it is often, if not always seen, when the head of the bone is upon the dorsum ilii. It is always present in the second stage of morbus coxarius.

Dr. Squires, of Elmira, New York, suggested a much more reliable means of diagnosis, when he called attention to the fact that, in *ancient* dislocations backward, the head of the bone may be detected in the notch by inserting the finger into the rectum or vagina. I have found this to be true in *recent* as well as in old cases.

There is in the ischiatic dislocation, when the limb is extended, but little, very little shortening. The head of the bone is thrown backward but usually very little upward—the ischiatic notch is upon an exact plane with the acetabulum, hence much shortening is impossible. For want of reflection upon this point, physicians have often been led into serious error and into most annoying lawsuits. Instances have occurred where cases have been left as reduced, from the fact, that when extended, both limbs were of equal length. A case of this kind came under my observation, in which much trouble originated from a mistake of this character; the limbs when extended were of equal length, yet the head of the femur was in the sciatic notch and was allowed to remain there.

Some years ago, I observed that when the position of the dislocated limb to the body is changed, a marked difference occurs in its relative length. *If the patient be placed upon his back and the thigh be flexed upon the trunk at a right angle, then the knee of the dislocated limb will sink below that of the other side from one to two inches.* A moment's reflection will make this clear. The ischiatic notch is situated directly behind the acetabulum, the head being thrown from one to the other, the limb is shortened the distance from the centre of the

cavity to the centre of the notch. This, in all cases, will be as much as one, it may be two or more inches.

Our great master in surgery, Gross, doubtless errs, when, in giving the symptoms of the ischiatic dislocation, he describes the head of the femur as situated "behind and *below* the acetabulum." If the head of the bone be below the acetabulum, then the limb should be lengthened, instead of, as he says, "shortened from a half to an inch."

Frank Hamilton says, "the position of the limb is, in some cases, nearly the same as in certain dislocations upon the dorsum. It is shortened usually about half an inch, the thigh being flexed upon the body, adducted, and rotated inwards; but the flexion is often less than in dislocations upon the dorsum, while on the other hand it is sometimes much greater."

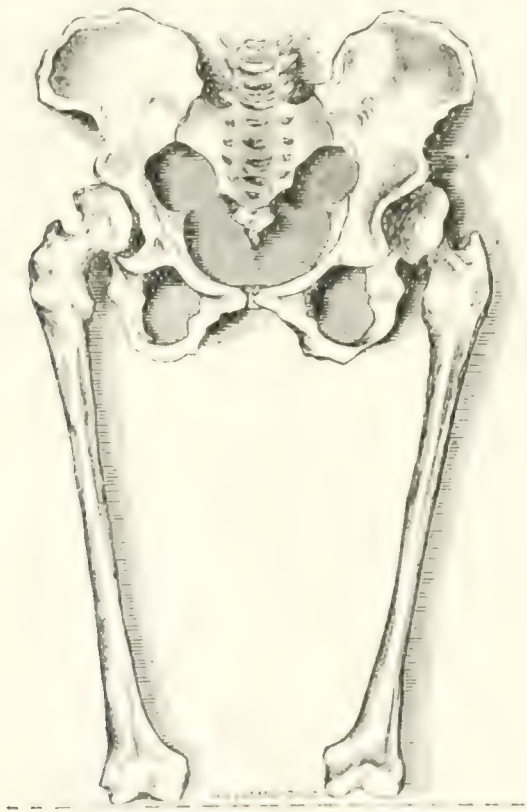


PLATE No. I.

Bigelow, in his learned work on the hip, scarcely recognizes the individuality of the ischiatic dislocation, he affirms that "the dislocation hitherto distinguished as 'upon the ischiatic notch,' and unnecessarily associated with it, is characterized by Sir Astley Cooper as differing from the dorsal displacement chiefly in producing less shortening of the limb." He looks upon the symptoms as differing only in degree.

Ashhurst groups the two together after this wise: "The symptoms

of these forms of dislocation are usually well marked. There is shortening of the affected limb, varying from about half an inch in the dislocation below the tendon to one, two, or even three inches, in that on the *dorsum ilii*." He speaks of the inversion as being most marked in the dorsal; so also is there but slight difference in the axis of the limb in the dorsal; it "crosses the lower third" in the ischiatic "just above the knee."

Gant states the case thus: "Dislocation in the great sciatic notch presents similar signs, but in a lesser degree, thus rendering the characteristic appearances less marked."

Bryant upon this subject says: "Dislocation backward on the ischiatic notch forms about a seventh of all cases, and may be regarded as a variety of the one just described, indeed Erichsen describes the two forms together as the ilio-sciatic. It is characterized by the same but less marked symptoms."

Erichsen. "When the head of the bone slips a little farther back, so as to become lodged in the *sciatic notch*, we have the dislocation backwards of Sir Astley Cooper, or as Bigelow calls it, 'dorsal below the tendon,' because the head of the bone lies below the tendon of the obturator internus muscle. In this the same symptoms exist, though to a less degree, hence the diagnosis is proportionately difficult."

Gross says: "This dislocation in its symptoms bears so close a resemblance to the iliac that some writers are disposed to regard them merely as modifications of the same lesion, the one being an exaggerated form of the other. I have myself, however, always looked upon them as separate and distinct varieties. \* \* \* The characteristic signs of the dislocation are, the situation of the head of the bone behind and below the acetabulum, a short distance above the tuberosity of the ischium; the comparatively slight shortening of the limb, the firm impaction of the thigh in its new locality, and the unusual distance between the trochanter and the spine of the ilium."

Spence, in his *Lectures upon Surgery*, gives the backward dislocation this status: "The symptoms of dislocation into the ischiatic notch are somewhat similar to those attending the dislocation on the *dorsum ilii*." He disposes of Syme's arched spine test by the following terse statement: "If we bring the limb down, as we can do with force, we make the back arch; and if we lay the back flat the limb rises again. In the dislocation on the *dorsum* of the ilium this is one of the best diagnostics we can have. It is due to the angle at which the bone is fixed. Some speak as if this symptom were only referable to the dislocation into the ischiatic notch; but it is really less marked in that than in the other luxation." By "some" above, he evidently refers to his countryman, James Syme. Syme's test was received, as he urged it, by the profession as applicable to the ischiatic dislocation alone; but a single trial will show that Spence is right when he says that it is by no means peculiar to the dislocation into the notch.



Carsten Halthouse, that acute observer and graphic writer, regards this dislocation "merely a variety of the former" (on the dorsum.) He finds that the shortening "rarely exceeds half an inch; adduction, inversion and flexion less."

Robert Allen, (Edinburgh, 1819,) looks upon this dislocation as rare. His signs are, "the limb is a little shortened, the foot and toes are turned inwards, the knee is a little bent, the trochanter major is placed further back than its natural situation, although turned toward the acetabulum, and if the patient is of spare habit, the head of the bone can be felt lodged in the sacro-ischiatic notch—more especially upon bending the thigh, which can be done to a certain extent."

Benjamin Bell, in his *System of Surgery*, 1799, teaches four dislocations of the hip: "Upward and backward, upward and forward,

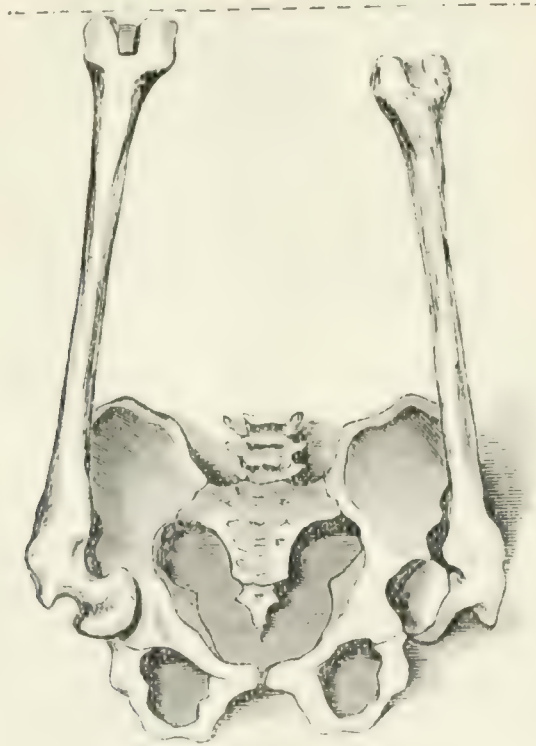


PLATE NO. II.

downward and backward, downward and forward, or directly downward. The first and third of these have very seldom been met with; and the most common variety, and the only one I have seen, is that in which the bone is thrown downward and forward, and lodged in the foramen ovale." The experience of surgeons differs widely from the assertion that the thyroid is the "most common variety." From his classification it is apparent that he did not recognize the lodgment of the head upon the sciatic notch as a possibility.

Dorsey, never having seen a sciatic dislocation, quotes from Boyer,

who describes the head as lodging "at the junction of the os ilium and ischium," below the notch.

Boyer suspects the surgeons of his day of mistaking fractures of the neck for dislocations. The means of diagnosis have certainly improved, for few such mistakes are now made. "As has been well remarked by Sir Astley Cooper, the sciatic notch being situated higher than the acetabulum, (?) this luxation is in reality a luxation backward and upward, and not backward and downward, as it used to be described before his time. The limb, accordingly, is always shortened, sometimes to the extent of an inch, and sometimes only to a trifling extent; and it requires great care sometimes to ascertain that any difference of length exists between the two limbs, the injured limb often seeming to be of the same length of its fellow." The above quotation is from Costello's *Cyclopaedia of Surgery*. The article was written by Maisonneuve. The lesson which the distinguished Frenchman teaches as coming from the great English surgeon upon the nearly equal length of the injured and the uninjured limbs when both are extended, and which is of so much practical value as an element of diagnosis, has doubtless been lost sight of by many writers and teachers who have followed.

Lizars makes the remarkable mistake of asserting that there is *a little more shortening in the sciatic than in the iliac*. The following statement is from page 177, vol. ii, of his *System of Practical Surgery*: "In this," (when the head is forced on the great sacro-ischiatric notch,) "there is a little more shortening and inversion of the limb, the great toe resting on the tarsus of the sound foot."

Petit doubts the sciatic as a primary dislocation; he is disposed to think that it is always secondary, the result of manipulation, the dorsal iliac being converted into the sciatic by the force executed by the reducing surgeon.

I have thus given extracts to show that up to this time no author, so far as I have read, has called attention to the difference in the length of the disturbed limb when extended and when flexed at a right angle with the pelvis. The extracts also show that the earlier writers had very vague ideas upon dislocations of the hip.

A reference to the plates, but more especially a trial with the skeleton, will make this matter patent to any one. As an element in diagnosis, in both plain and obscure cases, I think it will be of value.

Plate No. 1 shows the position when the limbs are extended; the shortening is slight—very slight—because, as I have said before, the notch is directly behind and upon the same plane with the acetabulum.

Plate No. 2 shows the limbs raised to a right angle with the recumbent trunk. The shortening, as will be seen, is very striking. It must be the difference between the centre of the acetabulum and the centre of the notch. This distance will be rarely less than two inches—often even more.

## HOSPITAL RECORDS.

## BELLEVUE HOSPITAL, NEW YORK.

## COMPOUND COMMINUTED FRACTURE OF LOWER JAW.

James Smith, aged 38,--married,--born in Germany. Admitted October 14th, 1877. Fell down from one of the bridges that cross the track at Grand Central Depot. Examination shows an oblique fracture of the lower jaw, at the right side, just at the angle. Another fracture exists at the right of the symphysis, the latter is comminuted. There is an incised wound on the chin, just below the lip, and another lower down along the margin of the bone. From the latter wound a piece of bone was taken out about an inch long and a quarter inch wide, which included the symphysis.

A closer examination, however, shows but one fracture, that on the right side extending obliquely downwards, from a point a little external to the symphysis. The wound beneath the chin and along the jaw is found to connect with the mouth anterior to the tongue, from this the saliva dribbles in considerable quantity. Two teeth were also knocked out. The whole is dressed with lightly applied carbolized dressings. The wounds washed out twice each day with carbolized water.

*October 17th.*—The fragments are kept in a fair position by means of pads over each angle, and a four-tailed bandage at fracture, near symphysis. On account of fracture at angle, the fragments over-rode each other to the extent of about one-half inch, and there was an upward displacement to about the same extent.

*October 20th.*—Put the jaw in plaster of Paris, after having gotten the fragments in very fair position. A fenestra was cut communicating with the wound opening into the mouth. Mouth very foul from decomposed articles of food.

*October 22d.*—The bandages failed to keep the jaw in good position; were removed. Fracture reduced, and a new bandage applied. Immediately after the application, patient said he thought the fragments had again slipped.

*October 24th.*—The last apparatus removed; not affecting the desired result.

*October 25th.*—A plaster of Paris cap placed over head. This gave a firm support to two bands placed under and around the chin. The bands were made of webbing, and had buckles attached so as to allow of tightening or loosening, according to circumstances as required. An interdental gutta-percha splint placed over teeth of lower jaw. This apparatus succeeds better than any that has yet been tried, and holds the jaw in a very fair position.



*October 27th.*—New inter-dental splint applied, and this together with changing position of bands around chin, keeps jaw in even better position than it was before.

*November 13th.*—Went out yesterday on pass, and at 9 this A. M., came in very drunk. Head-piece disarranged and inter-dental splint partially out of place. Sent to cells.

*November 23th.*—Several small pieces of diseased bone have come away from jaw since last entry, and denuded portions can be felt with probe through the wound underneath the jaw. The latter has very nearly closed. Slight amount of discharge still continuing.

*November 28th.*—Apparatus removed. Fragments firmly united with perfect position.

#### FRACTURE OF INF. MAXILLA.

Catherine Stimson,—aged 35,—born in United States,—widow. Admitted October 23d. On Sunday before admission was knocked down and kicked in the face by an unknown man. Examination shows first, fracture just to right of symphysis, and second, another fracture at the angle on left side. The face was somewhat swollen, and there were ecchymotic spots under the eyes and on the lower lip.

*October 24th.*—Jaws confined in a Barton's bandage, but so modified that a firm support was given on the top of the head by making a species of plaster cap. From this latter as a support two bands were passed, one around and one beneath the jaw. Apparatus succeeds admirably and keeps the fragments in almost perfect apposition.

*November 14th.*—An abscess appearing on the left side anterior to line of strap that holds jaw in position.

*November 18th.*—Has suffered a good deal of pain since last entry. Explored with a hypodermic needle, but found no pus. Ordered poultice to cheek.

*November 19th.*—Much relieved.

*November 23d.*—The fracture on right side has united quite firmly, but there is still some motion in one on left side.

*November 30th.*—Apparatus removed and everything perfectly united without any deformity.

The apparatus applied in these cases is a novel one, and offers many advantages over any that has hitherto been used. The plaster cap over the head may be made light by cutting out portions of the crown and at the same time give a fixed and permanent support to the bands that hold the fragments in apposition. The webbing bands are firmly incorporated with the cap by placing them between the folds of the plaster bandages. To these straps, buckles are fastened and thus we have an admirable means of regulating the support given to the fragments without the trouble of applying new dressings. The excellent results obtained in the two cases related, are abundant evidence of the utility and ease of adjustment of this method of dressing.

## LONG ISLAND COLLEGE HOSPITAL, BROOKLYN.

Reported by E. J. McPHARLIN, M. D., Resident Surgeon.

DEATH FROM ENTRANCE OF AIR INTO THE VEINS IN A CASE OF  
COMPOUND FRACTURE.

Jas. McNally, aet. 33, car-driver, was admitted to Long Island College Hospital, service of Dr. J. H. Hobart Burge, Nov. 8, 1877.

In attempting to jump off the front platform of his car, he was struck on the left side by a dummy engine in motion: thrown about fifteen feet and sustained a fracture of the right femur in the upper third; also contused wounds of the head and face. When admitted, an hour after the accident, he was suffering greatly from shock, but soon revived under stimulus. A wound on the left cheek extended up under the conjunctiva of the corresponding eye. This was sewn up before the patient was admitted, by a surgeon who stated that he had examined it carefully and that it was simply a contused wound.

*November 10th, 7 P. M.*—The patient up to this time was quite easy, and only complained of a little soreness about the head. Then developed a slight delirium, which continued about four hours, when suddenly, he began to breathe stertorously, and died almost immediately.

*November 10th, 7 P. M.*—The patient up to this time was quite easy and only complained of a little soreness about the head. He then developed a slight delirium, which continued about four hours, when suddenly he began to breathe stertorously and died almost immediately.

POST MORTEM.—The wound on the left cheek led down to a comminuted fracture of the ethmoid, making it compound. Foreign particles, that appeared to be pieces of a felt hat, were wedged in between the fragments of bone and pressed on the base of the cerebrum, where there was evidence of a suppurative meningitis.

Air was found in the heart, liver, spleen, and great vessels. The presence of air in these parts could not be accounted for otherwise than by its entrance into the venous channels of the brain at the place of fracture.

Every surgeon is familiar with the fact that in a few instances death has occurred very suddenly in consequence of the entrance of air into the circulation during large surgical operations. I do not remember to have seen any record of a similar cause of death after accident, and have therefore thought this case worthy of notice.

## PERISCOPE.

### COLLABORATORS.

- Dermatology*.—HENRY G. PIFFARD, M. D., Professor of Dermatology in the University of New York.
- Diseases of the Nervous System*.—EDWARD C. SEGUIN, M. D., Professor of Diseases of the Nervous System in the College of Physicians and Surgeons, New York.
- Diseases of Women and Children*.—FRANK P. FOSTER, M. D., Gynecologist to the Out-Patient Department, New York Hospital.
- General Surgery*.—EDWARD J. BERMINGHAM, M. D., Surgeon to the Good Samaritan Hospital for Diseases of the Rectum, and to the Out-Patient Department, Bellevue Hospital, New York.
- Genito-Urinary Diseases and Syphilis*.—ROBERT W. TAYLOR, M. D., Professor of Dermatology in the University of Vermont.
- Ophthalmology and Otology*.—S. B. ST. JOHN, M. D., Assistant Surgeon to the New York Eye and Ear Infirmary.
- Orthopedic Surgery*.—NEWTON M. SHAFFER, M. D., Surgeon to the New York Orthopedic Dispensary and Hospital.
- Practical Medicine*.—E. DARWIN HUDSON, JR., M. D., Professor of Practice of Medicine, Woman's Medical College, New York.

## ETIOLOGY OF PROGRESSIVE MYOPIA.

A VALUABLE paper by Dr. E. G. Loring, of New York, extracted from the Trans. of the Int. Med. Congress at Philadelphia, 1876, shows plainly that the development of this frequent and serious disease is not so much due, as has been widely supposed, to hereditary tendency, although this is undoubtedly an important factor. A laborious and exhaustive research into European and American statistics, (many of the latter collected by the author,) and a comparison of the amount of myopia with the degree of ocular work, shows that close application of the eyes to fine work during the early years of life accounts for a large amount of the myopia in civilized communities.

Tables are given representing schematically the percentage of myopia in Russian, German and American schools, and in the Russian table we find the percentage rising steadily from 15 per cent. in the lowest class to 42.8-10 per cent. in the highest. In the German it rises from 12 per cent. to 62 per cent., and in the American from 3 per cent. to 26.7 per cent. These results correspond very nearly to the amount of work done with the eyes of the school children of the three countries.

The prolonged tension of the accommodation during study, including the associated action of the recti muscles, is considered as a potent factor in the process, the influence of the ciliary muscle alone being held as of comparatively little importance.

Dr. Loring, in a paper on the same subject, read before the County Medical Society, laid emphasis on the fact that we do not find an unusual amount of myopia among type-setters and others who do fine work, but who do not begin to learn their work until the formative period of life is nearly ended.

In the proceedings of the Congrès Périodique International des Sciences Médicales, M. Hattenhoff reported as follows:



(1.) The ordinary causes of myopia are heredity and ocular work, combined or singly.

(2.) Hypermetropia can be changed into myopia by ocular work.

(3.) The progress of civilization, and especially of education, tends to increase the amount of myopia.

(4.) The predisposition to acquired myopia is often hereditary.

(5.) In ocular work three factors are principally concerned in producing myopia—accommodation, convergence of visual axes, and oculo-cephalic congestion.

(6.) The conditions of age, circumstances, duration of work, nature of objects viewed, and state of visual apparatus powerfully influence the development of myopia.

(7.) The prophylaxis of myopia includes individual hygienic measures at school and at home, which are in great part realizable by the united efforts of physicians and authorities. Among these measures may be reckoned the use of convex glasses for hypermetropes.

S. B. ST. J.

## THE PLASTER OF PARIS JACKET IN SPINAL DISEASES,

BY

EDMUND ANDREWS, A. M., M. D. (*The Chicago Medical Journal and Examiner*, December, 1877.)

AFTER describing the indication for support in Pott's disease, and the methods by which "curative apparatus" acts, the author compares the advantages with the disadvantages of the plaster jacket; his conclusions being as follows: "From these considerations it is evident that the plaster of Paris jacket is a very valuable appliance in numerous cases, and has the especial merit of being an extempore apparatus which can be applied, however remote the patient may be from instrument makers, and however impoverished he may be in purse. It has, however, some special disadvantages, and at its best is in no way superior to a well-fitted combination brace, containing the corset and splint in one instrument. Indeed, the superior convenience and tidiness of the combination brace will always cause it to be preferred by a large portion of surgeons and patients."

N. M. S.

## IODIC PURPURA,

BY

FOURNIER (*Lyon Medical*, October 28.)

Fournier describes an eruption following the use of the iodide of potassium. He has seen fifteen cases. The eruption has a special seat, being confined to the leg, between the ankle and the knee, and always more fully developed on the anterior aspect of the limb. The spots vary in size from a pin's head to a millet seed. Their form is round or oval, without any perceptible elevation. They are unac-

accompanied with pain or itching, and usually escape the attention of the patient. These macules were not developed under massive, but under moderate doses of one to two grams. In certain cases Fournier continued the iodic medication, and found that spots gradually faded away; but if the dose were increased, they reappeared. [The influence of iodide of potassium in the production of cutaneous lesions was first noted, we believe, by the late Dr. John O'Reilly, of this city. (*N. Y. Med. Gaz.*, Jan., 1854.) Beside other lesions, the doctor specially refers to a form of iodic purpura.] H. G. P.

## OXYURIS VERMICULARIS IN THE SKIN,

BY

MICHELSON. (*Berl. Klin. Wochensc.*, 1877, No. 33.)

In March last, a thirteen year old and apparently healthy boy was brought to Michelson suffering with an eruption that resembled an eczematous intertrigo of the genito-crural fold, and encroaching upon the scrotum and thigh. The cause of the eruption was at first not apparent; but, upon microscopical examination of the crusts and scales, he found eggs and embryos of the oxyuris vermicularis in various stages of development. Further examination of the patient, showed that the parasite had been conveyed from the rectum to the seat of the eruption through the medium of a soiled shirt-tail. Warm baths and a dusting powder consisting of one part salicylic acid and one part starch relieved the cutaneous difficulty in a few days.

H. G. P.

## ABOUT BOOKS.

*A Compend of Diagnosis in Pathological Anatomy.* By Dr. Johannes Orth. Translated by Frederick Cheever Skattuck, M. D., and George Kraus Sabine, M. D. Revised by Reginald Heber Fitz, M. D. New York: Hurd & Houghton, 1878, pp. 440.

This work is not designed to be an exhaustive treatise on pathological anatomy, but rather a practical guide to the student and practitioner for the performance of an autopsy. It is now some years since the appearance of Dr. Francis Delafield's able work on post mortem examinations, and very many changes and advances have been made since that time, so that the appearance of the present volume is not premature. At the same time Dr. Orth has already gained such an extended reputation as an original investigator, and a careful, painstaking observer, that a translation of his work in this country will probably be as successful as the original in Germany. The translators tell us in their preface that much new matter has been added to the original German edition, translated from manuscript still in the hands of the author and being collected by him for a subsequent German edition. Two new plates have likewise been added, illus-

trating the method of opening the heart, and the anatomical points requiring consideration in the removal of the sternum. These are a valuable addition.

The chief value of the work, we think, consists in the number of practical suggestions given, and the descriptions of the methods to be pursued in the study of morbid anatomy. Indeed, this has been the author's principal aim, and he has kept it in view throughout the whole of the work. A great deal of such practical knowledge can, of course, only be gained by actual experience in making post-mortem examinations; but, as the author truly remarks, "in order to make this experience the more profitable, it is necessary that a theoretical knowledge should first be acquired, not only of the course and method of the examination, but also of the alterations which may take place in the several parts, and of their characteristic peculiarities. This is all the more necessary, as but few students or physicians are able to secure special opportunities for practical training." And we may add to this, that in the present state of medical science, it is necessary for every intelligent practitioner to possess the kind of information of pathology that is contained in this volume.

The views of morbid anatomy that are set forth are chiefly those of Rindfleisch and Virchow, of whom Dr. Orth has been such a distinguished pupil.

The table of contents is very complete, "serving also as a brief recapitulation of the progress of an autopsy," and we will simply mention a few of the principal headings to give an idea of the scope of the work. The introduction describes preliminaries, instruments, etc. Examination of the body, A. Inspection—the body as a whole, its parts, of new-born children, skin, and subcutaneous tissues, under which is included the pathology of all its diseases. B. Internal examination—I. Spinal canal. II. Cranium, including all diseases of the brain and membranes. III. Thoracic and abdominal cavities, pericardium, heart, lungs, etc. B. Peritoneum, spleen, kidneys, pelvic viscera, duodenum and stomach, gall-bladder and liver, pancreas, intestine, great vessels, and lymphatics, etc. IV. Extremities, joints, bones, etc. This is, indeed, a very imperfect condensation, and gives little idea of the completeness of the work.

As regards the translation, as far as may be judged by the comparison of certain portions with the German original, we may say that it is excellent. The reviser remarks, with truth, "a correct translation has been deemed of greater importance than an elegant one," though there is no need of apology, as the book reads very smoothly, and is free from those grossly misconstrued sentences so frequently met with in translations from a foreign language, especially the German.

The publishers have issued the book in their usual handsome style, having printed it on good paper, with large type that does not call for any extra effort on the part of the physician's eyes to read—something that cannot be said of many medical works published at the present time.



# THE HOSPITAL GAZETTE

AND

ARCHIVES OF CLINICAL SURGERY,

A Semi-Monthly Journal of Medicine and Surgery,

EDITED BY

EDWARD J. BERMINGHAM, M. D., and FREDERICK A. LYONS, M. D.

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## LECTURES.

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### LECTURES ON PARALYSIS AND CONVULSIONS AS EFFECTS OF ORGANIC DISEASE OF THE BRAIN.

Delivered at Bellevue Hospital Medical College.

BY

C. E. BROWN-SEQUARD, M. D., Etc.

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#### LECTURE V.

GENTLEMEN:—You may remember that a fortnight ago I examined the question relative to the diagnosis between cases of disease of the various portions of the base of the brain, and cases of disease of other parts. I said that paralysis caused by disease of some portions of the brain, is sometimes very difficult to diagnosticate from that caused by disease of other parts, but I gave you some points that will enable us, in many cases, to come to an accurate conclusion. Among the symptoms that I did not mention, there are a few that will now receive our attention.

When the paralysis is located on one side of the body from disease of the pons Varolii, if the face is paralyzed, and it almost always is

from a lesion in this location, the paralysis will be on the opposite side in most cases. It may be on the same side, and the difference exists according to the seat of the lesion. If it be low down near the medulla, the roots of the facial nerve will be affected, and we shall have alternate paralysis. If the lesion be in the upper part of the pons Varolii, the symptoms are different; the paralysis of the face will be on the same side. In most cases, however, the paralysis of the face and limbs are on opposite sides of the body. In disease of this portion of the base, there is one important feature which must not be overlooked. If you look at a patient suffering from paralysis from brain disease in this locality, you will notice something that is absent from most other cases. This is a lack of power in closing the eye. The orbicularis muscle of the eye is paralyzed only in cases of disease of the pons Varolii. You usually do not find this particular symptom in other cases. If you tell the patient to close his eye, he cannot do so. In this feature there is a characteristic difference from other cases, showing that the disease is in the pons Varolii, or is not there. When this symptom is present, there is really almost a certainty of the existence of disease in the lower part of the pons Varolii. This is an important point, as you will see in my last lecture of the course, for the means of treatment is not the same when there is a difference in location of the lesion.

There are still other symptoms that show when the disease is situated in the pons Varolii or medulla oblongata. Among the number is a symptom called nystagmus. This consists in a trembling to and fro of the eyeball. It seems to the patient that the objects in his vision are trembling and moving to and fro, for the trembling of the eyeball gives him that delusion.

Still another feature of interest consists of a symptom that has only been studied during the last twenty years. Vulpian, of Paris, and Prevost, of Geneva, first called attention to it. It consists of a turning of the neck to one side, and a conjugated deviation of the eyes to the same side. If you look at my head drawn over to the left shoulder, and my eyes looking in the same direction, you see an instance of conjugated deviation of the neck and eyes. This is a frequent symptom in cases of softening of the brain, and likewise in cases of hemorrhage in that organ. As regards this symptom, there is something peculiar in this respect, viz:—In cases of disease elsewhere than in the pons Varolii, the tendency of the head and eyes shows itself toward that side in which the injury exists. This symptom comes on, the same as convulsions, wherever the disease is in the brain. The head turns to the side of the disease. If the lesion be on the left side of the brain, the head and eyes turn to the left; and, on the other hand, if the lesion be located on the right side, the head and eyes turn to the right. In most cases you will find the head turned away from the paralyzed side, toward the sound side. Now, when the disease is in the pons Varolii, we very frequently have the reverse of this condition, the head and eyes being turned towards the paralyzed side

of the body, and not towards the injured side of the brain. Here, then, is a diagnostic point between disease of the pons Varolii and other parts of the brain. Still, there are cases in which the deviation occurs in the wrong way. Instead of being to the side towards the injury, or *vice versa*, it may be to the opposite; but, in most cases, the rule I have mentioned holds true.

Before passing to other parts of the nervous system, I must tell you that there are two things which I should like you to remember, that show conclusively that our doctrines, as regards the physiology and pathology of the brain and cord, are so wrong that they deserve no credence. These two facts are: *First*—There are many cases on record in which, without any marked paralysis having been observed, the pons Varolii and medulla have been in a great measure altered. Indeed, a very few fibres of communication between the upper part of the brain and the spinal cord are sufficient for the persistence of all voluntary movements. If this fact be true, that only a few fibres, in comparison with the great numbers that exist, are sufficient for the communication between the brain and spinal cord, you can easily understand how it is that, in some cases, large portions of these parts of the brain may be destroyed without symptoms, as in the case related by Stanley, of St. Bartholemew's Hospital.

This case was that of a sailor who died without any symptoms of paralysis; yet, at the autopsy, the medulla was found so reduced in dimensions that it did not measure one-fifth of its ordinary size. An exostosis was found blocking up the channel between the cranium and the spinal canal. The aperture of the foramen magnum was reduced so much in size that it was impossible to pass the little finger through the opening. Still the man acted as a sailor, and did all of his ordinary duties as such with his ordinary undiminished power; and he died of another affection, without at any time having any kind of paralysis.

There are many other cases of the same kind of equal force. The odontoid process has been enlarged and caused pressure on the medulla, rendering it extremely small. In such a state, it could not be healthy. The medulla in this state, when cut, gives a hard, cheesy appearance. In a case by Beamis, in which no paralysis was observed, a microscopical examination of the medulla showed that not a single fibre remained healthy. Most of it was transformed in a tumor, and what remained showed a considerable alteration. There are, then, a great many cases of partial or total destruction without any *marked* paralysis. I say *marked* paralyse, for these writers say there was none whatever; but I allow for the inadequacy of our means of determining paralysis.

Such facts may seem very strange to you, especially when you know that the pons and medulla are most delicate parts, and in which a sudden injury proves instantaneously fatal in many cases. A mere prick in the medulla will kill an ox. You well know that in Spain, after the bull fights, the means of killing the wounded or infuriated animals, consists in passing a poignard through the muscles of the neck



into the medulla. In small animals this is very easily done, and a mere prick in the medulla causes death invariably. Although death is caused so easily by injuries in this location, lesions, coming on gradually, may cause alterations in the structure without symptoms. In many cases of hemorrhage into the pons Varolii, no signs of paralysis may occur. Hughlings Jackson has seen one of the numerous contradictions between the facts as they are, and as they should be in such cases. In sudden injuries and gradual diseases in these parts, not only has death not supervened, but even no symptoms of paralysis have been manifest.

The second point is also most important in this connection, and shows that the old views must be laid aside as they are in opposition to thousands and thousands of facts. What I have said clearly shows that no decussation in the base of the brain is essential for the conduction of motor impulses. What is usually taught consists in admitting that paralysis appears on the opposite side of the body, from the disease in the brain on account of the pretended decussation of the motor fibres, those from the right and the left crossing to the opposite side in the pons or medulla, or in both. The decussation, it is easy to show by facts in very large number, does not exist there. I have already pointed out to you a number of these facts. There are a number of decussating fibres, it is true, but they cannot be voluntary motor fibres. You cannot admit, in the face of these facts, that the voluntary motor fibres decussate in the pons Varolii or medulla. If I show, besides this, that there is no part of the brain in which the decussation exists, we must admit that there is no decussation.

Anatomy teaches that the bonds of union between the brain and the spinal cord are the crura cerebri, pons Varolii, and medulla oblongata. The cerebellum has never been looked upon as the bond of communication, and it would be absurd to do so, because there have been a number of cases of disease of the cerebellum without producing any paralysis. The only channel admitted by every one, is the front part of the base of the brain. The question, as regards paralysis, is, **whether there is any decussation.**

Suppose there is a disease in the pons Varolii, destroying everything there, and there are a great many such cases, we should have paralysis on both sides of the body, but this does not always happen. Suppose, again, that the pons is destroyed in one of its halves. In most of these cases, not in all, but in most of them, the paralysis occurs on the opposite side of the body, and it may be absolute. Now, what conclusion do we draw from this? It seems clear that the fibres serving for voluntary motion on the opposite side of the body all pass here, that is, on the side that is injured, as the paralysis is complete on the opposite side of the body. If you admit this fact, you must also admit the fact that the decussation does not include the voluntary motor fibres. If it did, you would have paralysis on both sides of the body, as in destroying one-half of the pons, you would destroy the fibres belonging to the two sides of the body, those for the one side

which have not yet decussated, and those that have already crossed over from the opposite side. If, therefore, the voluntary motor fibres decussate in the pons, a lesion on one side would produce paralysis in the two halves of the body and not only on the opposite side as it happens in most cases. The conclusion is positive, as we see in most cases that the paralysis occurs only on the opposite side, and in one clear case it occurred only on the same side.

We must likewise reject the view of Schiff, and others, that decussation takes place in the medulla oblongata and there only. The fibres that decussate lower down are very numerous, indeed. If the fibres decussate in the medulla oblongata and are injured above their crossing the facts would be easily explained. I believed that such was the case for a long time, and I published an article a long time ago, proving that the whole decussation was in the medulla, and facts were abundant which seemed to prove this opinion. If the disease is in one-half of the brain, a degeneration takes place in the fibres going down on the same side, until it reaches the anterior pyramid, and there it seems to cross. I think it can be proven, however, that decussation does not take place. If this is so, the decussation that is seen is not at all employed in conducting voluntary motor power, the voluntary motor fibres do not decussate in the brain at all. What are the facts? There are many cases of disease in the spinal cord without any paralysis at all. The olivary bodies, the corpora restiformes and the anterior pyramids can be destroyed without any paralysis at all on the opposite side. Experiments in animals show that in many cases division of the anterior pyramids produces no paralysis at all. Section here, cannot prove anything but what is clear, that no effect is essential in section of one-half of the medulla oblongata. If decussation of motor fibres occurs this could not be so.

If disease can destroy both halves of the anterior pyramids, as in the case of Vulpian, where a man walked into the hospital without any symptoms of disease of the brain and died soon after. The autopsy showed that almost the whole of the fibres of the anterior pyramids were destroyed or atrophied, it is clear that there can be no decussation of voluntary motor fibres in this location.

If we put these facts together, we will find that the voluntary motor fibres do not decussate in the pons Varolii or medulla oblongata, and as there is no other part where we can discover a decussation of fibres, it is clear that the fibres which compose the decussation are not the voluntary motor fibres. The other result that follows from this is, that the paralysis which we find almost always to be on the opposite side of the body cannot depend on the destruction of voluntary motor fibres.

This result we come to, not only from facts relating to paralysis, but also to convulsions, rigidity and stiffness of the muscles, chorea, tremulousness, and catalepsy can appear on the same side as the injury to the brain. So that we are not to look to convulsions



as establishing decussation. If we look to cases of disease of the crura cerebri, pons Varolii and medulla oblongata, we will find them with convulsions on the same side of the body. If the fibres of decussation were conductors of voluntary motor power, we should *always* have convulsions on the opposite side of the body. You could not have anything else, but as disease on one side of the brain has produced convulsions on the same side of the body, it is clear that fibres of decussation are not what they are pretended to be, viz., voluntary motor fibres.

I have now to come to some other points, but I will take this subject up again in one of the last lectures, and try to show by what mechanism the will acts on the muscles, and also show some points of diagnosis when the facts seem to be in disharmony.

We come now to the diagnosis of disease in the cerebellum and crura cerebelli. I will say that any one that could give an hour or two to the study of cases at random, would at once learn immensely in this respect. Almost any symptom can appear, and no one symptom is constant. The symptoms of disease of the cerebellum are varied, no matter what it is used for. I do not know what its office is, but if it serves for anything, it is an organ for the production of nerve force.

The most constant symptom produced by cerebellar disease is a general weakness. Even when the paralysis is only *local*, a *general* weakness exists. If there is nothing essentially belonging to disease of this portion of the brain, there are many symptoms that frequently appear with it, so that if a paralysis coexist with these symptoms, it may lead you to expect that the disease is situated in that locality.

A loss of sight is a very frequent thing in these cases. Why, you will say, is this so? With the views I have given you, that any symptom may come on from disease in any part of the brain, it is easy to make such a symptom come under the rule. There is no connection, directly, that is to say, between the loss of sight and the cerebellar disease. It may be said that the lesion causes pressure on the tubercula quadrigemina from its close contiguity, a tumor will exert such pressure. If it be true that the centres of vision are located in these organs, the fact would be in harmony with such a theory. But what of those cases in which there is no pressure and the loss of sight exists, and still more, how is it in the cases I shall presently mention. Disease in the cerebellum alone may produce amaurosis of one or both eyes.

There is still another point. There are many cases of disease in the cerebellum of slight extent, and in which no pressure whatever was exerted on other parts of the brain. A condition of softening or inflammation in the cerebellum has caused amaurosis in the same way. This phenomenon is of the same nature as what occurs when teniæ or lumbricoides in the bowels cause amaurosis either in one or other, or in both eyes.

Some medical men have tried to explain this loss of sight in cere-



bellar disease by saying that it is due to effusion of serum into the ventricles, and caused by disease of the cerebellum. It is true that in some cases there is considerable effusion of serum in the lateral ventricles. This comes from the fact that the sinuses of the brain are pressed upon by the disease in the cerebellum, and the circulation is thereby obstructed in one or both halves, according as the pressure is exerted on the veins. It is easy to admit such a cause in some cases, and the theory seems in harmony with the facts, but there are cases in which no serous effusion has been produced.

The truth of the matter is this, that a change in other parts of the brain can be caused by a disease in the cerebellum. The nutrition is altered, or there is the production of inhibition, or the phenomena of the arrest of function, which I consider the great point.

What are now other symptoms which show that the paralysis depends on disease of the cerebellum? There are two other symptoms that are more or less constant. Headache in the back of the head, more violent, perhaps, than in any other case, and vomiting. The vomiting, I need not tell you, is caused by contraction of the muscles of the abdomen and diaphragm, and of the walls of the stomach. If you take the view that contraction of the muscles takes place from irritation of conductors or centres, how can you explain the vomiting? There are no fibres connecting the cerebellum with the stomach. No one has ever supposed the cerebellum to be the centre for the stomach and for digestion. The vomiting is a reflected symptom. An irritation is transmitted to cells at a distance, other cells at a distance are put into play, and these act by putting into play the muscles of the abdomen, the diaphragm, etc., and thus the vomiting is produced.

Still another symptom to be noted is the great deal of disorder in the movements, which is exhibited. The patient seems drunk when he attempts to locomote. If he walk at all, he progresses like a person intoxicated by alcohol. This symptom is not like what occurs in locomotor ataxia. You know that in what is called locomotor ataxia, where the disease is situated in the spinal cord, instead of planting the foot down firmly in the straight direction, the foot goes sideways, and comes down, not on the flat, but on the heel. This symptom that we are speaking of as being present in disease of the cerebellum, is not like that seen in locomotor ataxia, but something different. Sometimes it is marked; sometimes it is not. The patient totters when he closes his eyes. There is lack of proper balancing power in the system.

This symptom occurs in many cases of disease of the cerebellum; but, from the fact that it does so, you are not to conclude that the cerebellum is the centre for equilibration.

It has been said that this organ is the centre for the muscular sense. The same thing as Flourens indicated, although he did not give it a name. The guiding power is lost in these cases, and there is a state of apparent drunkenness.

The appearance of this symptom is not due to the loss of the centre

controlling movements, because the destruction of a great part, or even the whole of the cerebellum, may occur without the loss of this power. If the centre for controlling movements were situated in this place, we ought always to have loss of this power when there is disease in the cerebellum, which I have already said is not true.

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## ORIGINAL ARTICLES.

### ALIMENTATION IN SURGICAL ACCIDENTS AND DISEASES, AND ITS GENERAL VALUE AS CONTRASTED WITH THE VALUE OF MEDICINE.\*

BY

FRANK H. HAMILTON, M. D., LL. D.,

Surgeon to Bellevue Hospital, Etc.

The old and homely adage, "starve a fever, and stuff a cold," probably teaches a double fallacy. At any rate, in the light of modern experience it would be an error to starve a fever; and it is not quite clear that it is well, in all cases, to stuff a cold; yet the second limb of the proposition is much nearer the truth than the first.

It is believed, to-day, that nearly all fevers are brought to a more speedy and satisfactory termination, if, during their existence, the vital functions are supported by nutriment, judiciously administered; and the practice is now considered "judicious" when nutriment is administered with a liberality not deemed safe by our fathers.

These later opinions seem to be sustained by careful observation, and they are at present taught by all of our most experienced and intelligent medical writers. Comparatively few, however, have sought to enforce the same doctrine when speaking of surgical accidents and diseases, or of chronic local inflammations. Yet I am persuaded that most surgeons entertain opinions in harmony with my own, and that their practice has in this regard—that is to say, in the matter of alimentation, undergone within a few years the same change as has the practice of physicians in regard to fevers. In what I have to say upon the subject, then, I do not pretend to originality; but my purpose is simply to record and give prominence to certain accepted maxims of practice which have not yet received the form of precepts.

The doctrine which I desire to support is, that nearly all surgical accidents and diseases demand alimentation—that furnishing such nutriment to the heart and lungs, and to the other vital organs, as shall enable them to perform their respective functions without labor and with fidelity, seldom or never causes an increase of existing inflammations, or aggravates traumatic fevers or other general disturbances dependent upon traumatic accidents. On the contrary, the doctrine teaches that most traumatic fevers and inflammations demand

\*Read before the New York Academy of Medicine.

nourishment as one of the most important, and often absolutely essential means of prevention and of cure.

When surgeons began to treat surgical accidents without the use of the lancet, the first important step was taken in the reform of practice in this direction. You know it is not long since, that when a man was shot through his lungs or belly, he was at once bled to prevent inflammation; and if the inflammation was not prevented, as in most cases, certainly, it was not, the patient was bled again and again to syncope. From three to a dozen bleedings were sometimes required to terminate the case; yet, in spite of the bleedings, the case did not always terminate favorably. The inflammation was sometimes only extinguished when death occurred. Men were bled, and leeches, and cupped for sore eyes and for sprained ankles, and for bruised shins, and for broken bones; and women were bled, and leeches, and cupped for inflamed breasts, and for the traumatic and septic fevers consequent upon childbirth. All this, with us, is changed now. During our great civil war, I never saw a surgeon bleed for a gunshot wound, and blood-letting is almost an obsolete term in modern gynæcology. I am speaking particularly of what has occurred in my own country; for I know less of the changes in opinion and practice which may have taken place abroad. On the continent, I believe, a marked change has taken place in the practice of surgeons since my first visit to Europe in 1844, and perhaps not so much in the practice of British surgeons, who still continue to bleed quite freely, in gunshot injuries especially. I must be understood, therefore, to be speaking only of American practice, in reference to which my knowledge is more precise.

When bleeding was so much practiced, antimony and low diet were its natural and inevitable adjuncts. Antimony disappeared with the lancet; but low diet, and "absolute" diet—a term employed to designate the extreme of low diet—have held their ground longer than the lancet or antimony. Even physicians, who were the first to abandon the system of low diet in fevers, did so reluctantly, and not until long after they had given up the lancet. Thinking, probably, that if experience had shown that the quantity of blood in the system had less to do with the progress and severity of fevers than they had formerly supposed, its quality, at least, must be considered, and that nourishment rendered the blood more stimulating, and thus supplied fuel to the fire. This opinion they no longer entertain, or, to say the least, it is very greatly modified.

In the practice of surgery, I now very often hear the value and importance of nourishment spoken of where formerly a low diet was enjoined, and this seems to me to be the second step (a less resort to the lancet being the first) which surgeons have taken or are prepared to take, in the treatment of surgical accidents.

I take this opportunity of saying that, possibly, as has been hinted now and then by late medical writers, the type of fevers and of inflammations has undergone a change in the human family, and especially



since the period when the Asiatic cholera spread over the world, or since the period when typhoid fevers became more prevalent, and that possibly the general use of anæsthetics has determined a change also in the character of traumatic inflammations. In view of which possibilities, one change in practice would not imply that physicians and surgeons were in error when they adopted in all these cases what was then spoken of as the "antiphlogistic" treatment; but that the diseases having changed, an observing profession had properly changed its practice, also, to suit the new exigencies. These points I do not propose to discuss; but only to state my conclusions from the facts as they are now presented in our daily experience.

There ought to be no misunderstanding as to what is meant by alim-entation in diseases or in traumatic injuries. Food, that is, meat, vegetables, etc., are not of necessity aliment simply because they have been conveyed into the stomach. They need to be digested and properly assimilated before they can be regarded as nourishment; and it is unnecessary to say that the stomach, with the other organs of digestion, are not always in a condition to extract nourishment from all kinds of food, or even from the most nutritious food; but that, on the contrary, the digestive organs are notoriously capricious, refusing at one time what they readily appropriate at another. These conditions unfavorable to assimilation being present often when we consider ourselves in health; but they are almost constantly present, in a greater or less degree, immediately after the receipt of a severe injury, and in many cases during prolonged local disturbance; that is, during the progress of recovery from severe local injuries, digestion and assimilation wait on appetite.

A severe shock to the nervous system, such as is produced by a grave injury, by a painful and exhaustive surgical operation, by prolonged anæsthesia, and by sudden and afflicting news, may for a time paralyze nearly all the functions of the body, if they do not cause speedy death; and in this general paralysis, the stomach participates with the other organs, in consequence of which digestion suddenly ceases or is greatly impaired. The food which may have been at the moment contained in the stomach, remains to undergo putrefaction, and becomes a source of irritation and of distress, causing, in some cases, nausea and vomiting, and in other cases a copious diarrhoea, or both at the same time. The occurrence of either of which phenomena may be regarded as a natural and safe mode of relief; but if neither occurs, a complete restoration of the powers of digestion and assimilation cannot be looked for until the offending matters have been removed by the aid of drugs, or more slowly by delay and simply omitting to urge food upon the stomach for several days, during which time this organ will, in most cases, gradually unload itself.

It may happen, also, that for a considerable time after the offense is removed, the stomach will remain irritable or exhausted, and fail to perform its duties, demanding appropriate medicines to overcome these derangements.

Under these conditions, and probably under others which have not been named, rest or medication may be most important, and ought to precede all attempts at alimentation; and simply because alimentation is now impossible. But the time soon arrives, in nearly all cases, in which alimentation is possible, and then there ought to be no delay in the use of appropriate food. I say *appropriate* food; for it is well enough to repeat that a rich man may starve while attempting to extract nourishment from plentiful supplies of tough or badly cooked meats, or from food which, while it is in all other respects unobjectionable, is to the patient's capricious stomach disgusting or simply distasteful, and will not, therefore, either provoke a flow of saliva or of gastric juice.

If the food is not appropriate, the patient who receives it will not only suffer from lack of nourishment, but also from the irritation caused by the presence of undigested, and, consequently, irritating materials. *Such attempts at alimentation will certainly increase febrile action and aggravate inflammation.*

The fact is, however, that examples are exceedingly rare in which some feeble ability to digest food does not exist; and even in these exceptional cases, a judicious selection and timely administration of certain articles seldom fails to produce an appetite, or at all events to convey to the system some nutrition. A warm, well seasoned and well cooked cup of broth, or a fragrant cup of hot coffee and milk, will often relieve nausea and epigastric distress, assuage a colic, diminish the severity of a headache, lift the tone of the nerves suffering under shock; and the same or similar means will often abate sensibly febrile disturbance and soften the pains of inflammation. Who ever knew of harm from food under these circumstances, when carefully and judiciously administered? I am, at least, certain that for every case in which it can be shown to have done harm, twenty cases will be found in which it has done good.

Medicines—so-called—are in general so far inferior to a fragrant and savory cup of food, as peptic persuaders, and I have seen many patients suffering with nausea and loss of appetite, who have been speedily relieved by the mere omission of the bitter and disgusting tonics which have been forced upon their reluctant stomachs. It is true that, under the circumstances referred to, now and then good medicines do good and improve the appetite; and their occasional abuse or unskillful exhibition is no reason why they should never be used. Nevertheless, I wish to say, very emphatically, that the abuse of medicines is more than "occasional." It is alarmingly frequent. It is a simple elementary truth, that there are many diseases and surgical injuries in which recovery takes place as speedily without medicines as with medicines; and if any medical man has not learned this, and continues to give drugs from day to day for every form and grade of human ailment, so much the worse for him and for his patients.

But if men can live and recover from disease sometimes without medicine, no man can live or recover from disease without food.



Organs which are maimed and struggling must have food, or they will soon cease to labor, and will die. A wound will not heal nor a bone unite without nutriment. In every human malady and surgical accident, repair and recovery wait on nutrition.

It is not improper, then, to say that as a means of restoring the sick and wounded, when both may be needed, good food is of more importance than good medicine. Large armies have always suffered more from a deficient supply of proper food than from a deficient supply of proper medicines.

One conclusion to which my statement of facts and process of reasoning leads me is that hospitals and dispensaries ought to have the means and appliances for supplying to the sick, infirm, and maimed who come to them for help, not only medicines and skilled medical and surgical services, but also an abundance of nutritious food; indeed, that the question of food ought to be the first, where it is generally the last consideration.

There is an impression among many laymen, who have the charge of hospitals, that "extras," including eggs, milk, etc., with the services of the "diet kitchen," ought to be reserved for the few who are very seriously ill, and that all the slightly ill or convalescent should be content with the "ordinary" diet of the hospital, which is seldom very attractive to even a sound stomach. Those who have had experience in the United States army hospitals know that this was never the theory or practice of these hospitals; but that all of the regular rations were commuted, and with the money thus obtained nothing but what might be termed "extras" were purchased.

If a man is able to eat hard-tack and salt pork, or tough beef and unsavory soups, he is able, generally, to go to work, and ought not to remain in the hospital. Though well in other respects, and detained only because his broken limb is not thoroughly repaired, it does not follow that he can eat and digest what he could easily master when working out of doors, and carrying brick-hods to the top of five-story buildings. If it is an object to get these men speedily out of the hospital, and thus save the taxpayers; if it is desirable to restore them soon to their families, of whom they may be the sole support, then it will be necessary to give them food which will encourage an appetite, and be easily digested by a stomach weakened by long confinement, sickness, and anxiety. They must be treated in this respect in the hospitals, as we—you and I—are treated at home, where the utmost care is taken to see that our food is suitable and appetizing; where, although we may have ceased to take medicine, so long as we find ourselves unable to return to our usual out-door duties, we are fed only upon "extras." These same poor people, inmates of the hospitals, if they were at home, in their own humble apartments, would be fed better, so far as the quality and mode of preparing the food is concerned, than they are in most public hospitals. No pains are spared, generally, to furnish to the poor all the medicine they need; but what they want most, and get the least, is good food.



The medicines and liquors dispensed at Bellevue Hospital during the six months ending July 1, 1877, cost \$7,750; and for all the charities and prisons under the charge of the Commissioners of Public Charities and Correction, these two articles cost, for the year 1876, \$40,892; about one-fourth of which, the apothecary informed me, was for liquors; leaving a balance of about \$32,200 as having been expended for other medicines than stimulating liquors. Possibly a much larger sum has been expended for "extras" in the same institutions. Upon this point I am not informed, but my long connection with this, and other civil hospitals, enables me to say that it is generally more difficult to obtain proper food, and a supply sufficient for the demand, than it is to obtain good medicines and in sufficient quantity.

In these remarks there is no imputation upon those excellent and humane gentlemen who are in charge of these institutions. In my opinion we are alone responsible for this state of facts, inasmuch as we have hitherto failed to urge upon them and the public the greater importance of nutriment and the comparatively less importance of medicine.

Some intelligent men and women, not of our profession, have seen the want before we have, and they have established in various parts of the city diet kitchens, to supply the very want of which I am speaking, and which are properly made subsidiary to the dispensaries. There ought to be one immediately connected with every dispensary, and in the same building as the drug store now is. Indeed, I would be glad to see one-half of the drug stores, and all of the liquor stores converted into diet kitchens. I am not quite certain that they need all to be eleemosinary in their character. It is possible they might, some of them, be self-sustaining. They will not have to be taxed like liquor shops, to pay for the crime and pauperism they create—nor will they kill as many people by accidental overdosing as do drug shops, not to speak of the deaths from overdosing caused by the prescriptions of illiterate and careless doctors. Those who have them in charge will not require a very long apprenticeship, and need know nothing of latin.

Very few of their materials will have to be imported, and they will require very little advertising, so that all in all these diet kitchens can be run very cheaply.

You will not consider it out of place, I trust, if I read to you the opinions of a professional athlete, Mr. J. M. Laffin, as reported in one of our morning papers—the *Herald* of October 21, 1877. He is speaking upon the subject of diet in training.

"In the first place, there are at the present day many young men who are preparing or training for athletic pastimes or pursuits who naturally apply for instruction as to diet to some professional athlete, who gives them the stereotyped advice: 'Eat plenty of rare meat.' Now this advice would be all well enough, perhaps, if the stomach of the one asking advice was as strong as that of the one giving the

advice; but it is not, of course, and so, as it requires a great deal of tone and strength in the stomach to digest rare meat, the beginner in athletics finds himself unable to digest the rare meat he eats.

"Then in the second place, nothing is well digested in the stomach against which the palate revolts. In many instances—myself, for example at first—the taste of very rare meat is very unpalatable indeed, and to overcome this difficulty, recourse is had to all sorts of spices and condiments to render it more pleasant. Most spices and condiments are pernicious in the long run to digestion, and so rare meat, eaten under these conditions, becomes positively injurious.

"Meat ought to be neither rare nor what is called well done, but medium, so as to be palatable without spices, etc., while at the same time it retains a large share of its natural juices.

"More harm has probably been caused by this notion of rare, under-done, bloody meat being wholesome, than by any other idea on the whole subject, and the very first thing, young men, especially young men luxuriously nurtured, who take a personal interest in athletics should do is to abjure this notion altogether."

In these opinions I fully concur, and if Mr. Laffin's opinions are sound in reference to the eating of raw and highly seasoned meats by those who are in health, it is quite certain that this, to civilized palates, disgusting and over seasoned food is unsuitable for the sick, and it would be well if medical men would give attention to the common sense and practical remarks of this gentleman.

GENTLEMEN.—The remarks contained in the proceeding pages are by no means intended to be exhaustive of the subject of which they treat. They are simply suggestive, and are intended to call attention to a point in the therapeutics of surgery upon which, as it seemed to me, too little had been said and written.

In order that you may better understand what these suggestions are, and that, in the discussion which is to follow, you may be prepared to give with more directness your assent or dissent.

FIRST.—Chronic or low and persistent forms of inflammation are most apt to occur, idiopathically and as a consequence of traumatic lesions, in persons who are imperfectly nourished, and they are followed by the most serious results, such as ulceration, caries, necrosis, etc.

SECOND.—Chronic inflammations are seldom permanently overcome until by proper nutrition the general system is brought up to the standard of health. Not until all the various functions of the body are performed with vigor and fidelity—a condition which implies perfect nutrition.

THIRD.—Acute inflammations are most apt to occur, idiopathically, or as the result of traumatic lesions, in persons who are imperfectly nourished; and are followed by the most serious results, such as supuration, pyæmia, erysipelas, etc.

This statement is not inconsistent with the fact that people grossly fed, and intemperate in the use of stimulating liquors, such as gour-

mands, beer drinkers, whiskey drinkers, etc., are notoriously liable to rapid and destructive inflammation, as a consequence of traumatic injuries.

These people although they may be fat and ruddy, and although they may possess, as do the beer drinking porters of London, great muscular power for momentary exertion, have no endurance, and never make good soldiers. It is true they are probably sufficiently nourished, that is they have taken in and assimilated a sufficient quantity of proper food, but its quality is changed by the large amount of effete and inflammatory elements with which the blood is constantly loaded. These men are not, therefore, in any proper sense healthy, or *well-nourished*.

Nor is the statement contained in this third proposition, inconsistent with the fact, that people who are simply fat, but who are not intemperate in eating or in drinking, are, perhaps, more subject to inflammation, or to say the least, to some of its dangerous sequelæ, especially suppuration. Fat implies nutrition, but not, when in excess, healthy nutrition. Fat is a tissue of low organization, and under inflammation, is peculiarly liable to destructive metamorphoses.

Finally, acute inflammation and its sequelæ or accident are least liable to occur, and are most easily prevented in the well nourished, but temperate, thin and dry people.

FOURTH.—It seems a necessary corollary from the preceding or third proposition, that in order to the prevention of acute inflammation after traumatic injuries, and in order to cure acute inflammation after it has commenced, and in order to prevent its accidents or dangerous sequelæ, it is well, if not absolutely necessary, to nourish the patient through each of these several periods.

I believe this to be true, yet there are some facts of experience which seem to render the truth of the statement questionable; and it is, perhaps, the only one of my several propositions which is liable to a challenge.

There can be no doubt that bleeding, antimony, cathartics, with absolute diet and cold applied locally, that is to say, the old-fashioned "Antiphlogistic" treatment has often and may again bring certain acute traumatic inflammations to an abrupt and favorable termination. It will be another matter to consider, whether the same end could not have been accomplished as speedily by other means, and with less strain upon the vital forces, and with less danger of subsequent accidents and relapses. The question, at this moment, is, whether acute inflammation has ever yielded to "antiphlogistic" treatment, and I answer that it has, but probably more often formerly than now.

The farther question which at once suggests itself is, with this admission, how are we to reconcile the fourth proposition, namely, that nutrition does not prevent, but probably aids in the cure of acute inflammation?

The line of argument by which I reconcile the apparently conflicting propositions is this:



A. Antiphlogistic measures are means calculated to relieve temporarily local congestions, and consequent stasis, and painful pressure which are among the first link in the chain of inflammatory processes, and that they do nothing more, and if they fail in this, as unfortunately they do in too many cases, then they have in no way abated the inflammatory process, while they have rendered the tissues doubly susceptible to its destructive influence.

B. My own experience in the use of nutrients preceding the occurrence of traumatic inflammation and during its progress, has brought a conviction that nutrition is at all times harmless and often necessary.

C. It seems to me, as I have stated before, a necessary inference from the third proposition, the correctness of which proposition will not probably be questioned.

FIFTH.—Food is not of necessity aliment. It ought to be appetizing and digestible.

SIXTH.—The stomach is not always in a condition to digest and assimilate food; but this condition is exceptional. Such cases demand rest or medication.

SEVENTH.—Anæsthetics, morphine, and narcotics, generally impair digestion, and this fact should always be taken into consideration when for sufficient reason their exhibition becomes necessary.

EIGHTH.—There is a popular inclination to the excessive use of medicines of all kinds in the class of diseases now under consideration, as well as in all other diseases, and which medical men seem powerless to resist unless by adopting a fraud, pretending to give medicine when they do not. They often interfere with the success of our operations, and prevent recovery from accidents. My experience has been pretty large in this matter, and if my accuracy of observation has been equal to my opportunities, morphine has killed nearly as many men as have bullet wounds of the belly, not that most of these men would not have died of the wounds if let alone, but that the morphine has done sooner what the bullets would have probably done later.

Do not, gentlemen, understand me as denouncing morphine as a proper agent to be employed in bullet wounds of the belly, but only its abuse; an abuse which commences very often before the patients come under our notice; and especially is this true, in my experience, where patients have suffered injuries and are brought to the public hospitals. They are almost constantly overdosed with morphine when they arrive.

NINTH.—Nutrition is always safe and proper.

TENTH.—We need more good food for our patients—especially in the public hospitals—more diet kitchens and fewer drug stores everywhere.

Finally, permit me to say, that I am aware of the danger of accepting doctrines as a substitute for facts, which former are too often specious but unsound. It is not always safe in medicine to attempt even to formulate facts, but on the contrary, it is safer sometimes to let

every fact stand alone and by itself, and thus compel each separate fact to force its own conclusions.

Whatever in the preceding remarks seems to be only theoretical you are not asked to consider, but only how far your experience in the managements of the class of injuries treated of, corresponds with, or differ from that of the writer.

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In the debate which ensued upon the reading of the foregoing paper, Dr. Leonard Weber, while endorsing in the main the sentiments of the writer, considered that belly wounds demanded the use of morphine rather than nourishment.

To this Dr. Hamilton replied that the exception was well taken; that it was entirely true that in the case referred to, it was for a time more important to give morphine than nourishment; indeed, that at first morphine was necessary and food inadmissible; but the reason was this: the morphine was necessary to prevent that peristaltic action which always resulted from a wound of the gut, and which action was likely to increase the inflammation, and to expel the contents of the gut into the peritoneal cavity. It was also needed to allay pain, which was apt to be excessive in these cases. While, on the other hand, food must be prohibited, because the reception of either solids or fluids into the stomach was almost certain to awaken that peristaltic action which it was so important to prevent. Food was then withheld, not because nutriment would, in itself, aggravate the inflammation; but solely because it would prove an excitant to the muscular fibres of the stomach and intestines, in the same manner that a pebble or a glass of water would.

Dr. Hamilton said that his objection to morphine in these cases had only reference to its abuse. That it ought to be given in sufficient quantities to subdue pain, and to arrest the peristaltic action of the intestines; but that, when given to the extent of causing tympanitis and retention of urine, as it often was, it was hurtful. Whenever, in such cases, he found tympanitis, whether it was caused by morphine or the bullet, and it was generally the former, his prognosis was unfavorable. The tympanitis implied an arrest of the process of digestion, and the consequent formation of gases.

If this condition were induced by "shock," or by the activity of the inflammatory process, it would certainly be a sign of danger. When caused by morphine it equally implied a paralysis of certain functions and was in so far a complication, but the distinction of wounded intestines by gases must facilitate the escape of these gases into the peritoneal cavity, and with this explanation we can see how the excessive use of morphine in these cases increases or hastens this fatal issue.

Dr. Alfred C. Post thought the writer might not be fully understood, and that there were certain acute febrile states in which alimentation would not be tolerated. He also thought the question of rare or well

cooked meats was a question to be determined by the kind of meat and by taste. Black meats require less cooking than white.

Dr. Andrew H. Smith remarked that in his opinion no more aliment would be assimilated in any case than the system actually required. This was found to be the case with the absorption of oxygen by the blood contrary to the views formerly held, and he thought that the same rule would hold good in regard to alimentary substances. Even if more were absorbed it would be promptly thrown off as excrementitious material, and would not constitute a hyperalimentation or hypernutrition.

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## HOSPITAL RECORDS.

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### COLORED HOSPITAL, NEW YORK.

Contributed by FRANCIS HUBER, M. D.

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#### ANEURISM OF ASCENDING AORTA.

Jno. W., Va., laborer, 35. Brown skin. Admitted 3-13-76. Father and mother same color as self. Has one sister living and well. When young he had measles. Had gonorrhœa about two years ago. He has been troubled with rheumatism for past ten years. The attacks would last about six weeks at a time, and then patient would be free for months.

On admission patient complains of pain in chest, more marked on left side and shortness of breath, which he perceived about a month ago.

Also has pain in his left leg and is very restless at night. Bowels are regular.

Pulse, 76; Respiration, 20; Temperature, 99°.

Urine reddish, 1018; acid, very slightly albuminous.

Physical examination. Left side fuller than other. Resonance increased over both lungs. No rales or change in respiratory murmur.

Heart apex beat in fifth intercostal space, five inches to left of median line. A systolic murmur is heard most distinctly near the base and is propagated over a wide area.

Diagnosis, Aortic Stenosis and Hypertrophy. Treatment, tonics. 10-25-76. As patient complained of a constant pain in left side of chest, he was carefully examined a number of times for aneurism; always however with a negative result. The last physical was made about six weeks ago.

This morning a tumor was accidentally discovered on the left side. The patient says he first noticed it about a month ago. It has grown so rapidly that at present it has attained the size of a man's fist. The tumor projects from the middle of the sternum, between the line of second rib above and fifth rib below. Superiorly and inferiorly, its



margins are quite abrupt; while latterly the prominence recedes gradually, especially on the left side where a secondary elevation between third and fifth ribs can be distinguished. Over the whole tumor pulsation is distinctly perceived. A loud systolic murmur with maximum intensity over left nipple is heard. Marked dullness exists over the most prominent portion of the tumor, and extends as far as left nipple.

The radials, carotids and femorals beat feebly. The tumor vertically measures four and one-half and bilaterally five and one-half inches.

Lungs healthy.

12-24-76. Patient is feeling comfortable. The tumor is increasing to the left.

2-5-77. Tumor is growing slowly, increasing downwards and to left. Very little pain is connected with it at present. Has had several attacks of articular rheumatism; quickly relieved by alkalies.

3-20. Suffers from frequent attacks of dyspnœa, generally coming on after a full meal. Aneurism gradually increasing in all directions. Is again suffering with rheumatism; ordered salicylate of soda

3-22. Under above treatment pain has diminished and tenderness is greatly lessened.

4-5. Tumor steadily increasing; at present measures seven inches in vertical and eight and one-fourth in transverse diameter. Uppermost portion is one and one-half inches below the suprasternal notch.

4-16. Small nodule, about the size of a hickory nut, presenting itself at upper portion of tumor, and gives evidence of softening.

4-22. Nodule spoken of in last note increased to size of large chestnut. It is very soft and epidermis on its surface is scaling off. Faint pulsation can be detected in it. A prominence immediately under it is also growing softer.

4-23. A slight oozing of blood took place from the lower of the two nodules. The blood was very dark and fluid.

4-24. A slight oozing from the larger nodule. In both cases the bleeding was easily checked by application of lint saturated with the lig. fer. subsulph.

4-26. Patient has been gradually failing for some time past. The emaciation is very great. At times complains of great pain connected with tumor. There is no evidence of pressure on œsophagus or trachea. Appetite is pretty fair. Up to a few weeks ago, patient was able to sit up.

4-27. For last fortnight has been compelled to keep in bed, because of increasing weakness.

Died very quietly at 2 P. M.

Autopsy eighteen hours P. M. Rigor mortis not very well marked. Body greatly emaciated. Brain not examined.

Pleuritic adhesions were found on both sides; in greater number on right. The left pleural sac contained about a pint of serum; considerably less was present in the right. Both lungs were compressed and

carnified; the left weighed only thirteen ounces, and was about one-half size of right. No other abnormalities present.

The pericardium was greatly thickened, and very firmly adherent to the heart by both old and recent adhesions. The heart itself was twisted so that left ventricle was situated anteriorly.

The aortic valves were slightly thickened, especially at base; not contracted or fissured. About one-fourth inch above base of valves in the anterior wall of the aorta, an opening about five-eighths of an inch in diameter communicated with a large aneurism, about the size of a coconut. The aneurism had absorbed its way through the body of the sternum, and in addition had produced extensive erosion of the anterior and posterior surfaces of sternum, and the costal cartilages of the four or five upper ribs. The portion of the tumor presenting externally was of about same size as that situated internally. The arteries coming off from the thoracic aorta were all pervious.

**Abdominal organs were not examined.**

The absence of the usual symptoms in the earlier stage, the rapid growth and the uncommon origin of the aneurismal tumor, render the above case instructive and interesting. Though aneurism had been strongly suspected, and the patient carefully and repeatedly examined: physical exploration, prior to the perforation of the sternum by the tumor gave each time a negative result. The light thrown upon the case by the "post mortem" fully revealed the difficulties in the way of an early diagnosis. Partly intrapericardial, and springing from the anterior face of the aorta, a short distance above the Valsalvian sinuses, the tumor developed in the region of cardiac dullness. The bruit, ordinarily so characteristic of arterial tumors, in this case, was most distinct in the region in which we usually seek for lesions of the aortic valves. Pulsation was obscured by the interposition of the sternum. The aorta not dilated at any point was of normal calibre throughout. The orifice in the anterior wall of the artery, through which the blood swept into the aneurism, was sharp cut, circular, and less than three-fourths of an inch in diameter.

## PERISCOPE.

### COLLABORATORS.

- Dermatology*.—HENRY G. PIFFARD, M. D., Professor of Dermatology in the University of New York.
- Diseases of the Nervous System*.—EDWARD C. SEGUIN, M. D., Professor of Diseases of the Nervous System in the College of Physicians and Surgeons, New York.
- Diseases of Women and Children*.—FRANK P. FOSTER, M. D., Gynecologist to the Out-Patient Department, New York Hospital.
- General Surgery*.—EDWARD J. BIRMINGHAM, M. D., Surgeon to the Good Samaritan Hospital for Diseases of the Rectum, and to the Out-Patient Department, Bellevue Hospital, New York.
- Genito-Urinary Diseases and Syphilis*.—ROBERT W. TAYLOR, M. D., Professor of Dermatology in the University of Vermont.
- Ophthalmology and Otology*.—S. B. ST. JOHN, M. D., Assistant Surgeon to the New York Eye and Ear Infirmary.
- Orthopedic Surgery*.—NEWTON M. SHAFFER, M. D., Surgeon to the New York Orthopedic Dispensary and Hospital.
- Practical Medicine*.—E. DARWIN HUDSON, JR., M. D., Professor of Practice of Medicine, Woman's Medical College, New York.

## SOLID FOOD IN TYPHOID FEVER.

(Practitioner, November, 1877.)

BY

DR. SAMUEL D. TURNEY,

Professor of Diseases of Children, Starling Medical College, Ohio.

DR. TURNEY, early in practice, observed the similarity between the later stages of typhoid fever and the effects of imperfect nutrition. He came to believe that many deaths attributed to the disease were the results of unsupplied waste of tissues. A more liberal diet of nutritious fluid food—rich soups, beef tea, egg-nogg, and milk—was followed by milder symptoms, shorter continuance of the disease, and increased number of recoveries. As early as possible, before the stomach has lost its digestive power, he advises solid food—beef, mutton, roast potatoes, and toast. He advises little or no fluid at meals; patient is urged to eat, if only a few mouthfuls, and the habit kept up; in the course of three or four days, loathing of food ceases, it is readily taken, and even anticipated. *Pari passu* the gravity of the symptoms subsides, the course becomes mild, and the patient convalesces at the end of the third week, with no other therapeutic means. Contrary to accepted belief, Dr. T. asserts that solid food does not increase fever, or cause indigestion, gastro-enteritis, aggravated diarrhoea, ulceration of Peyer's patches, hemorrhage or perforation.

E. D. H., JR.

## MINOR THERAPEUTIC USES OF SALICIN.

BY

T. J. MACLAGAN, M. D. (*Practitioner*, November, 1877.)

SALICIN is of service in those cases of *neuralgia* in which pain comes on in periodic exacerbations, and in which quinine either fails



to do good, or is for some reason inadmissible. It is as an occasional substitute for quinine that salicin finds its place in the therapeutics of neuralgia (coryza, rhinitis), *cold in the head*. The author cites four cases: *Case I.*—Adult; took twenty grains every two hours; perceptible relief after third dose; evening after ingestion of one hundred and sixty grains, cold entirely gone. *Case II.*—Boy of six years; had coryza; took eight grains every two hours during day. In evening, after six powders, forty-eight grains, nearly well; in morning, cold cured. *Case III.*—Young lady, age twenty-two; severe cold; no treatment, and convalesced in a week to ten days. But her younger sister, nineteen, began with similar attack. At the outset fifteen grains of salicin were given hourly for three hours, then fifteen grains every two hours; after eight powders, one hundred and twenty grains, cold entirely gone. *Case IV.*—Middle-aged lady; took six powders, ninety grains, and was relieved of severe coryza; it recurred the next day, but by evening yielded permanently to fifteen grains every two hours.

**ACUTE LUMBAGO.**—In two cases speedy relief has followed twenty-grain doses every two hours.

**HAY FEVER.**—Two cases, treated with twenty-grain doses; symptoms were removed; has recurred when the drug was suspended.

E. D. H., JR.

## COHN ON THE PRODUCTION OF LOCAL ARTIFICIAL ANÆMIA AS A MEANS OF TREATING DISEASES IN THE EXTREMITIES.

(*London Medical Record*, December, 1877.)

DR. BERNARD COHN relates his experience in treating three cases, (one of which was a white swelling of the knee,) of acute and chronic inflammation in the extremities, by temporarily rendering the limb bloodless with Esmarch's bandage:

An acute phlegmon of the toe, with inflammatory swelling of the foot, after fifteen minutes' application of the bandage, was followed by a very notable diminution of the swelling and pain. In a case of very painful diffuse swelling of the forearm, the pain, and the swelling, to some extent, disappeared. On these two cases the author properly lays less stress than upon the case of joint disease. A child of three and a-half years of age had suffered for eighteen months from a white swelling in the knee. The disease had originated in a fall, and a well marked acute stage had been followed by the characteristic chronic changes of tumor albus. The joint was swollen, painful, much flexed, and scarcely moveable, either actively or passively. It had been treated by fine gypsum bandages, covering twenty-six weeks. When Dr. Cohn first saw it, the affected knee was one and

one-half inches larger than its mate, the bones felt thickened, the subcutaneous tissue infiltrated, and the borders of the patella were difficult to make out. No effusion of the joint was observed. The general condition was otherwise satisfactory.

The treatment was commenced by applying the bandage for a few moments only. But, after four or five days, it could be borne an hour daily—sometimes longer. Occasionally the application was made twice daily, when it was allowed to remain half to three-fourths of an hour each time. After three weeks it was found that the difference in the size of the two joints was reduced from four centimetres, (one and one-half inches,) down to half a centimetre. The condyles had become restored to their normal form, the patella loose and moveable, pain and tenderness had completely disappeared, the amount of passive motion was increased, and there was no pain on movement.

Forcible extension was now practiced under chloroform, and was attended by a recurrence of the inflammation; but this was rapidly subdued by the previous treatment. The final result was almost perfect cure; the patient could walk and move the joint in all directions without pain. The only trace of the previous disease which remained was a trifling amount of swelling, and a somewhat impaired mobility of the articulation.

Dr. Cohn states that the limb should be thoroughly emptied of blood, and the occlusion should be a perfect one. The final constriction should be made with several turns of the bandage and not with a narrow tube. In reply to a query, "How long can this bloodless state be maintained?" he says, 'The limit of safety is not likely, he thinks, ever to be reached, and we need not be anxious on this score, if the shutting out of the circulation be perfect. An imperfect occlusion is dangerous. The blood passes by the arteries into the limb, while the venous outlets are completely stopped. The pain is a great difficulty in this method, but it may be reduced by not applying the bandage constricting the limb above tighter than is absolutely necessary.

N. M. S.

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### ABOUT BOOKS.

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*A Guide to Therapeutics and Materia Medica.* By Robert Farquharson, M. D., Etc. Enlarged and Adapted to the United States Pharmacopœia, by Frank Woodbury, M. D. Philadelphia: Henry C. Lea, 1877.

The design of the author of the work before us has been to present in a succinct and condensed form the present state of our knowledge, concerning the physiological and therapeutical actions of the various remedies now in ordinary use. We cannot say that he presents any

new facts concerning medicines and their actions, but he is thoroughly impressed with the correct idea, that a proper and intelligent use of drugs depends upon an accurate knowledge of their physiological actions. The volume is another proof of the advance we are making in the right direction of throwing aside empiricism, and basing our therapeutics on a rational foundation, that of thoroughly appreciating the indications to be met in disease, and knowing the rationale of our means of meeting and counteracting them.

The feature of the work that is original, is the author's idea of placing the physiological action and therapeutical application side by side, opposite each other in double columns, thus showing clearly and at a glance how one depends upon the other. He takes care to give no points that are not pretty well determined and past the stage of discussion, and therefore what he says may be considered quite reliable and as representing the most advanced views at the present time.

The articles of the *materia medica* are not arranged in classified groups, as the author does not believe that this can be sufficiently accurately accomplished. So in order to waive the difficulties of physiological classification, he adopts the alphabetical system. We cannot entirely agree with him on this point. It is perfectly true that many medicines act in different ways and may be stimulating to some organs or functions while they are sedative to others, and so incapable of being brought under either head. Still, there are many well defined groups, and it is perhaps carrying the principle a little too far to find fault with all classifications made on a physiological or therapeutic basis. A classification, such as that adopted by Wood or Bartholow, is quite scientific, and is a great aid to the understanding as well as to the memory. Under any circumstances, such a classification, though it may be faulty in some particulars, is by far preferable to the alphabetical system adopted in this instance.

In the introduction are some valuable remarks on prescribing, though we notice a tendency to give too great a prominence to *a priori* reasoning, and when this comes in conflict with well-known clinical experience, it must give way. This is very aptly pointed out by the editor of the American edition in a foot note, and he gives an illustration quite *a propos*.

Taking everything into consideration, we are very highly pleased with the work. It will be found a most valuable addition to the library of both student and practitioner. To the former, it will serve to give correct ideas in a compact form, and impress them strongly on his memory, and to the latter it will be useful to give him at a glance just what he wishes to know without robbing him of his time in having to read a number of pages to get a few important facts.



# THE HOSPITAL GAZETTE

AND

ARCHIVES OF CLINICAL SURGERY,

A Semi-Monthly Journal of Medicine and Surgery,

EDITED BY

EDWARD J. BERMINGHAM, M. D., and FREDERICK A. LYONS, M. D.

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## LECTURES.

### LECTURES ON PARALYSIS AND CONVULSIONS AS EFFECTS OF ORGANIC DISEASE OF THE BRAIN.

Delivered at Bellevue Hospital Medical College.

BY

C. E. BROWN-SEQUARD, M. D., ETC.

#### LECTURE VI.

GENTLEMEN—In the last lecture I pointed out to you the symptoms that are generally found when the paralysis occurs from disease in the cerebellum. To-day, I have to conclude with what relates to that question. You may remember that I said there was very frequently, in such cases, a disorder in the movements of the body. I characterized them as being similar to what is observed in a drunken man. One observer, taking into account the experiments of Ferrier, endeavored to show that the centres for the movements of the eyes are located in the cerebellum. He thought that if disease in the cerebellum produced disordered movement, it was due to lack of

power in the eye. The movements of the eye become irregular and disordered, and a man who sees objects continually shaking before him, has disorder in his movements. This peculiar condition of disordered movements cannot be explained in this way. If it were due to such a cause, it would cease as soon as the eyes were closed, for then the impression of the shaking of objects would be lost, and consequently be without effect. In most cases there cannot be such an explanation, as there is no such pretended relation. These conclusions, as to the explanation of the disorder in movements, have been arrived at from Ferrier's experiments on the electrization of the cerebellum in animals.

Ferrier has not paid attention to a fact which always occurs in experiments of this kind. The movements seen in electrization are due to an irritation carried from the point to which the stimulus is applied. The action is caused in a reflex manner. The same sort of thing occurs when the sole of the foot is tickled. When we irritate that part, certain muscular movements occur in the face, but we do not conclude from that fact, that the centre for those movements is situated in the sole of the foot. The same reasoning leads us to deny that because galvanism of a certain portion of the cerebellum causes movements in the eyes, that the centre for their movements is situated there.

In order to establish the existence of a centre for special actions, we should be able to show that not only galvanism, but all other modes of irritation or excitation will produce the same action, and furthermore, when the brain is destroyed, or the part is taken away with a knife, we should get a cessation of the movements.

I have found in six or seven hundred cases of cerebellar disease no trouble whatever with the eye; only in a trifling number of cases is there trouble with the eye. Cases vary greatly, in some there is spasm of the recti muscles, in others there is something else, and there are a great many kinds of difficulty. It is certain, however, that a peculiar disorder of movements is frequently observed in disease of the cerebellum.

There are two other peculiar features observed as regards disorder of movements in disease of the cerebellum. These are just the opposite of each other, one being a tendency to run forward, and the other being a tendency to run backward. There are cases reported of tubercles situated in the centre of the cerebellum, in one of which the patient had a tendency to run forward, and in the other there was a tendency to run backward. Now you cannot in one individual locate in that spot the centre for forward movements, and in the other the centre for backward movements in the same place, and as, besides, in disease of the same part of the brain a variety of symptoms may occur, you cannot say that there exist centres for forward, or backward, or side movements.

So it is with the rotatory or circular movements. You can find all of these peculiar aberrations of movement in disease of other parts of

the brain, although, it is true, some of them are found most frequently in disease of the cerebellum. The rotatory movement occurs more frequently in disease of the pons Varolii where the crus cerebelli enters it, or in the crus cerebri. These portions have more power of producing this movement than the cerebellum. Disease of the suprarenal capsule has been known to produce this description of movement. Disease of the auditory nerve, with or without organic disease of the brain, has been known to produce it, as in the celebrated case of the Duke of Wellington. He was suffering from some trouble with the ear, and a quack injected into it a solution of nitrate of silver. The next day he was seized with this affection and continued to roll round and round in his bed.

But to continue with what I have to say of the symptoms that coexist with disease in the cerebellum. There is a fact of considerable interest concerning the sexual organs. It has been said that the cerebellum is the centre for the sexual apparatus. It is certainly true that in some cases of disease we find a loss of sexual power, but we may, on the other hand, see exactly the reverse of this condition present. An inflammation in the centre of the cerebellum may cause either loss or increase of the sexual power. The conclusion that there is no relation between the sexual power and the cerebellum comes out even more clearly when you see that no change whatever may appear in this function when there is extensive disease of the cerebellum.

In one of the most remarkable cases that I know of, of disease of the cerebellum, that recorded by Dr. Combette, there was no trace of disorder of movements, or inability to stand or walk. In this case the disease was located in the cerebellum and its attachments. There was no loss of sexual appetite, but, on the other hand, an enormous increase. If the organ were in connection with, or had control of the sexual apparatus, something quite different should have occurred. The patient was a young girl who was intensely addicted to masturbation. The result was not due to an irritation of the organ, as there was no organ there to be irritated. We cannot say that the symptom was due to such a cause, as the cerebellum was completely absent. The views, then, as regards the presiding power of the cerebellum over the sexual apparatus cannot be entertained.

Another most important point relates to the paralysis itself. If the cerebellum has any particular function, it is the organ that serves for the production of nerve force. The only thing that is at all constant in disease of this organ is a diminution of the strength. This loss of strength exists in all parts of the body, whether the disease is situated in one-half or the other of the cerebellum, or in the middle.

The variety of paralyzes that occur in disease of the cerebellum is extremely great. There is no doubt, however, that in most cases there is a localized paralysis. Paralysis may be due in some of these cases to pressure on the pons Varolii exerted by the lesion in the cerebellum. Almost invariably in these cases, the paralysis is on the opposite side of the body. We find such results particularly when



the lesion in the cerebellum is of such a nature as to cause pressure, as a hæmorrhage or a tumor of considerable size that presses on the pons Varolii. In such cases the paralysis is due in reality to disease of the pons Varolii, and only apparently to the disease in the cerebellum.

Sometimes paralytic symptoms appear in cases where there is but very limited disease in the cerebellum, as a slight softening. In such cases paralysis cannot be due to pressure on the pons Varolli, and there is no doubt whatever that paralysis may appear where there is no degree of pressure whatsoever.

There may be, in rare instances, paralysis of the face, or the tongue, or the whole body, but as a rule, in hemiplegia allied with disease of the cerebellum there is no paralysis of the tongue or of the face. In these facts lie the principal points of diagnosis. If a patient be suddenly struck down with apoplexy and has a strong hæmorrhage, if he have hemiplegia, difficulty in breathing, coma, and loss of consciousness, we have here the symptoms usually occurring in hæmorrhage in some part of the encephalon. If we find no paralysis of the face or tongue, and when the patient recovers from the first effects of the stroke he has vomiting, amaurosis, etc., we may usually consider that the hæmorrhage has occurred in the cerebellum. When the patient has recovered sufficiently to get up, and when he walks, we notice that besides his hemiplegia, he has disorder of the movements, we are still further led to think that the disease is situated in the cerebellum.

Professor Andral has pointed out perhaps more forcibly than any one else, that disease frequently coexists on one side of the brain, and on the other side of the cerebellum. In such cases the paralysis that occurs is almost always situated on the side of the body in which the disease located in the brain would produce it, viz., usually the opposite. This is almost always the case when there is a lesion on one side of the brain and the other side of the cerebellum. There is an exception sometimes when we find tubercles scattered on the right side of the brain and the left side of the cerebellum, and in some of these cases we have paralysis on the right side of the body, contrary to Andral's rule.

Another feature is extremely interesting. When atrophy is found consequent on disease of the brain, we almost always find some in the cerebellum on the opposite side. We shall have to pay more attention to this in the future than in the past, as much that will prove of interest will be found in this fact of connection.

Now let us pass to the crura cerebri, parts above the pons Varolii at the base of the brain. They are composed of a great nest of fibres going through them to enter into the corpora striata and optic thalami, or to go directly to the convolutions of the brain. This part certainly is full of interest. It is quite certain that the crus on each side is, according to the prevalent theory, the only bond establishing connection between the same side of the brain and the opposite side of the body. As every-

thing is narrowed down, then, to one particular location, what pathology shows us in regard to disease of this portion is far more important than what relates to other parts. There is no possibility of escaping from the conclusions to be drawn from these facts. All the fibres serving for voluntary motion pass here, those from the right side of the brain in the right crus, and those from the left side of the brain in the left crus. This is in accordance with the generally admitted theories.

If these theories were right, when there is disease in a small part of the crus, striking only a few fibres of the many that compose it, say the outside fibres, the paralysis should be limited accordingly. If these fibres are really what they are imagined to be, going straight to the muscles after having passed through cells in the medulla oblongata and spinal cord, we should always see the paralysis limited entirely to certain muscles. It might be paralysis of the arm or leg, or only a few muscles of the arm or leg might be involved. Now such is not the case at all. There are a great many cases of disease located in the crus and having destroyed the fibres in different parts. A paralysis, if it exists, should be seen in those muscles receiving their nerves from the particular part of the crus that is the seat of the disease, and chiefly on the opposite side of the body. In by far the vast majority of cases the paralysis is more extensive than it ought to be, taking into consideration the extent of the lesion. You may find paralysis of one arm or of one leg only from disease in the crus cerebri, but do not therefore believe that any particular fibres are destroyed, as we may find the same paralysis of the arm alone when the disease is elsewhere in the crus, or even in the whole of the crus. There is no connection between the seat and extent of the paralysis and the location and limit of the lesion in the crus.

There are cases where there is no paralysis at all following disease in the crus cerebri, as in the case of abscess of Jackson of Boston. There are cases where the whole of the crus has been destroyed, and there has been a complete absence of marked paralysis. Still more, there are cases—four to my knowledge, one by Mason—in which disease in the crus cerebri produced paralysis on the corresponding side of the body. So that in this organ, as well as in other parts of the brain, we see facts that are entirely inconsistent with the old views. We see no paralysis where there ought to be paralysis, or we see paralysis where it ought not to exist, or we see paralysis on the wrong side of the body, although it ought always to be on the side of the body opposite to the side of the brain on which the lesion exists, according to the old theories.

There are five cases to my knowledge in which both crura cerebri were destroyed without giving rise to any marked paralysis.

From an examination of all these facts, you must be led to admit what I have already said, that very few fibres are necessary to establish the connection between the will power and the muscles.

The symptoms of disease in the crus cerebri are quite interesting to



study. The third pair of nerves which moves a great many muscles of the eye is affected almost necessarily in disease of the crus cerebri, unless the disease is situated in the back part. Dilatation of the pupil results as a consequence of paralysis of the constrictor muscle. There is also strabismus, owing to the persistent action of the sixth pair of nerves. In a considerable number of cases there is diplopia. There is paralysis of the elevator of the eyelid which is innervated by a branch of the third pair, and so we have ptosis. So you generally find ptosis, strabismus, diplopia, dilatation of the pupil, etc., existing when the disease is situated in the crus cerebri, and these points will help you in the diagnosis.

If the disease is situated in the back part of the crus cerebri, the third nerve may escape, and then these symptoms will be wanting.

It has been supposed that the conductors of sensation, likewise, in going to the brain, pass through the crura cerebri. This idea is radically false, as they may be destroyed without any loss of sensation. In one case hyperæsthesia occurred.

There are some other features which may lead you to the diagnosis of disease in this place. It is in the neighborhood of the passage of the fibres of the optic nerve, and so you may get derangement of vision. Where the tubercula quadrigemina are involved, you frequently see amaurosis. In three or four cases I have seen hemiopia. From these symptoms you may have means of diagnosis in many cases where the disease is in the crus cerebri on either one or the other side.

The tubercula quadrigemina are frequently injured when the disease is situated in the crus, and they have been considered as centres for vision. They have, certainly, a power over vision, but they both may be diseased without any amaurosis, or one may be diseased alone, and produce amaurosis in both eyes. There is then no necessary connection between them and the power of vision, but in the majority of cases we are able to say that when they are diseased we get certain changes in the power of vision. Fortunately, by a complete analysis of the symptoms occurring in brain disease, we can often come to a correct diagnosis.

Disorder of movements may exist when the tubercula quadrigemina are diseased, the same as occurs in disease of the cerebellum, but in this case the symptom is usually less marked. When the eyes are closed the patient cannot stand on one foot. We also find this condition present in disease of other parts, but most frequently it is due to disease here. This fact led Cocks, and other physiologists, lately to conclude that the tubercula quadrigemina were centres for the muscular sense. This is not so, as in many cases of disease of these organs there is no lack of the balancing power.

To pass now to other parts. There are two large ganglia, or rather part of one and the whole of another, that protrude into the lateral ventricles. One of these is the corpus striatum, which consists of two parts, the intra-ventricular and the extra-ventricular. They had always been considered as voluntary motion centres up to the time of



the experiments of Fritsch and Hitzig, who have thrown physicians into the belief that the centres are located in the convolutions. Todd, Carpenter, and most others look on the corpora striata as voluntary motor centres, but here again I am obliged to dissent from these accepted views. I now speak of the intra-ventricular portion of the ganglion. Disease here, if the part were, as is believed, employed in moving the muscles, if it produced irritation, would cause convulsions to be manifested.

Now the truth is that irritation of no other part of the brain has so little power of producing convulsions. This is a decisive fact that shows that it is not a voluntary motor centre. It is said to be in connection with other parts, which, when excited, are supposed to give rise to convulsions. According to recent views, it has not been stripped of its power as a centre. It is supposed to be a place of passage for the voluntary motor fibres where they acquire new strength, being in connection with new cells which add fresh power to their functional activity.

In reality, we find cases of destruction of the corpus striatum without any paralysis at all, or at least without any marked paralysis. There is no relation as regards the duration, extent, and degree of the paralysis and the lesion in the corpus striatum from which it resulted. There are cases in which the disease was exceedingly slight and limited to a minute part of this portion of the brain, with, however, a persistent paralysis up to the time of death, and moreover of a severe character. The facts observed, are then in decided opposition to the theory.

Hughlings Jackson holds very properly, that one small part of this portion of the brain could alone perform the functions of the whole organ. He knew very well that a great portion of it could be destroyed, and that the function might yet remain, but when we find *all* of it destroyed, and still no paralysis or loss of function, why then there is an end to the theory.

Still more, we find disease occupying the intra-ventricular portions of both corpora striata without any paralysis. There is not one such case alone, but a great many like cases.

The corpora striata have no specific signs by means of which we can recognize the locality of the lesion, but we have some signs by which we can suspect its presence there. Hæmorrhage here is by far more frequent than in any other part of the brain, except perhaps in the optic thalami. There is also another exception to this generality, but perhaps it can hardly be called an exception, and that is, that it is also almost as frequent between these two ganglia, the corpora striata and the optic thalami. That peculiar condition that Charcot described as miliary aneurism is extremely common in the blood-vessels in this location, and this is the cause of the frequency of hæmorrhage in this location—that is, in the corpora striata and optic thalami, and between the two ganglia.

If you have paralysis of one side of the body, and symptoms of

hæmorrhage in the brain, in this mere fact alone there is a supposition that the disease is situated in this region. Other symptoms of disease in the brain, such as paralysis of the third pair of nerves, the existence of amaurosis, symptoms in which the patient shows a tendency to go round and round, or forward, backward, or sideways, or execute particular movements, are by far less frequent when the disease is situated in the corpora striata, than they are when the disease is situated in other parts. Vomiting occurs less frequently in disease here. There may be hyperæsthesia in many instances. By passing in review all the symptoms known to be more frequent in disease of the base of the brain, and knowing that a lesion here is not so apt to produce these symptoms, we may most often come to the right conclusion, especially will this be the case if there are no convulsions.

This leads me to speak of the optic thalami, disease in which, will produce convulsions very frequently. It may also cause paralysis, and here again we come into conflict with the generally accepted views regarding the physiology of this organ. According to these theories it is not considered as assisting in voluntary movements, but paralysis comes on just as frequently from disease here as from disease in the corpus striatum or in other parts. These facts are highly in favor of the views I have given you, and decidedly against the view that paralysis arises from the destruction of centres or conductors.

In disease in the optic thalamus there is a great change in the reflex faculty in the limbs, when they are paralyzed, or even when they are not much or not at all paralyzed. It disappears entirely, or is much diminished, or just the contrary, there may be a condition in which the reflex faculty is increased.

There is still another feature of interest. There is often paralysis of the blood-vessels on the opposite side when the disease is situated in the optic thalamus. Not that I consider the optic thalamus as a centre for the vaso-motor system, but, nevertheless, the clinical fact exists. There is a dilatation of the blood-vessels, and a heightened temperature of the part. This is the reverse of what you usually find in disease of the pons Varolii, in which latter case, the limbs of the opposite side are found to be colder.

The optic thalamus is certainly a most interesting organ, and I wish I could dwell upon it more at length. There are few that are so extremely interesting. Very frequently, disease here is the cause of amaurosis. Still more, there may be loss of the senses on one side, generally on the opposite side, very similar to the condition produced by division of the trigeminal nerve as described by Magendie. The loss of senses is slowly produced, generally on the opposite side, and it differs from division of the trigeminal in that respect.

What is more remarkable still, we have an alteration in the structures of the eye. This has occurred in two cases to my knowledge, and I dare say it has done so in more. In these cases, the trigeminal nerve was apparently healthy, so that there is, then, a great resem-



blance between its properties and those of the optic thalamus. It has been considered as the centre of sensation, but many new observers have given up the views of Todd and Carpenter. In the neighborhood, but not inside of the optic thalamus, is the channel of passage of the fibres serving for the perception of sensation. These fibres go to the posterior lobes of the brain, but we very frequently find destruction of the posterior lobes without any anæsthesia.

We will pass now to another part of the brain, that is, the radiation of the fibres to the convolutions on the external surface. This part constitutes the centrum ovale. Disease in this portion of the cerebral lobes can produce paralysis, and the paralysis may be just as great as the paralysis produced by disease anywhere else in the brain, and there is this remarkable fact that the disease may be situated in the most distant and distinct parts and still give rise to the same kind of paralysis. Disease in the anterior, middle or posterior lobes can produce paralysis.

Disease in any part can produce complete paralysis on the opposite side of the body. If the disease here is limited in extent, can it be that all of the fibres are destroyed? Where the paralysis is complete and the casual lesion is limited, the facts cannot be reconciled. In such a case, the paralysis should be slight or local, but I repeat that complete persistent paralysis is often present.

In the cases of Porta and others, all of this portion of the brain has been destroyed without any paralysis at all.

There follows necessarily, also in the examination of these facts, a series of proofs against the views generally admitted. Paralysis or convulsions may be on the corresponding side to the lesion, or on the opposite, but in one out of every three hundred cases the paralysis will be on the same side. Not so, however, with convulsions. You will find them as frequently on one side as on the other when only the white fibres are diseased. Paralysis cannot then be owing to a destruction of fibres conducting the impulses from the will power to the muscles.

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## CLINICAL LECTURE.

Delivered at the College of Physicians and Surgeons, New York,

BY

T. GAILLARD THOMAS, M. D., ETC.,

Clinical Professor of Diseases of Women and Children in the College of Physicians and Surgeons,  
New York.

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### I. LACERATION OF THE CERVIX UTERI. II. HEMORRHAGE AFTER ABORTION. III. PRURITUS VULVÆ.

GENTLEMEN—Of the cases I shall show you to-day you may, perhaps, have seen many examples before in this clinic; but this must not discourage you. You must always keep distinctly in mind what is the



object of a clinic like this. You come here to make yourselves familiar with cases that you are likely to meet with in ordinary practice, and not with those that you may, perhaps, never be called upon to treat. I am sure that if I had been going to perform gastrotomy to-day every seat before me would have been filled, and naturally; but you come to see such operations as a sort of curiosity. The time of a clinic like this, however, should be occupied by the exhibition of such cases as you will often see in your office, and that you may be called upon any day to treat. It is true that your text-books tell you how to treat these cases, but only in a certain way. You are not brought face to face with the case, as you are in a clinical lecture, where the case and the treatment are so closely brought into apposition. I need, then, make no further apology for showing you a certain class of cases frequently.

The first patient is Mrs. Mary F., æt. 34, a native of the United States; married nine years. She has had three children and no miscarriages. The last child was born five years ago, and she has never been well since. Now, in hearing this history, there are two points that ought to make an impression on you at once. She has been married nine years, and has borne three children, all three of which were born in the first four years of married life; but, for the last five years, the greater portion of the time, she has been sterile. This is a curious fact, to say the least. The second point is this, that her last child was born five years ago; from that particular time she has never been well. The inference must be, that something occurred at her confinement to make her an invalid, and prevent her bearing any children afterward.

Up to that time she had been pretty well, suffering only occasionally from a little weakness. Now, let us inquire into what the trouble has been since that time. She says that for two or three days before the commencement of her menses she suffers from pain. Sometimes these pains are relieved when the flow is established, but sometimes they continue, though in a less degree, during the flow. She further complains of a constant backache, and a continual leucorrhœal discharge, of a slimy, yellowish substance. This discharge irritates the parts considerably.

The history is a short one, and the patient has but very few symptoms to be relieved. They are very clear, and she comes here to have them removed. Let us recapitulate them: *First*—Sterility of five years' duration. *Second*—Profuse leucorrhœa. *Third*—A fixed backache; and *Fourth*—A pain in the left side, coming on two or three days before menstruation, and very often relieved when the flow commences.

Now, let us see what an examination reveals to us. The finger touches the cervix, and, on rocking the uterus backward and forward between one hand in the vagina, and the other on the abdomen, it is found to be perfectly in its normal position. On placing the patient on her side, and introducing the speculum, the vagina is found to be

bathed in a discharge, and is in a condition of chronic inflammation. The cervix is found to be lacerated extensively. It has contracted somewhat, as the injury is an old one; but I can almost pass my finger up to the os internum. I could not map out the left ovary distinctly, but, on pressing the broad ligament in the situation the ovary ought to occupy, it was found very sensitive to pressure. Clasping the ovary between the hands is not always practicable; but in this case it is highly probable that the pain produced by pressure is due to chronic ovaritis.

What accounts for the leucorrhœa? On the introduction of Sims' speculum, we saw what is commonly called a large granular ulcer. This condition is not, however, an ulcer; it is the cervix uteri which has been entirely laid open and exposed by the laceration. To this condition is due the leucorrhœa.

The fixed backache is likewise due to this cause. The exposed surface of the cervix is very tender, and in a neuralgic condition. It is in just the same state as the lower eyelid would be in a patient suffering from ectropion. It is a delicate part, and not intended to such exposure. Any irritation or inflammation produced pain in the exposed surface. The pain in the back is a reflex neuralgia transmitted to the spine. You often see the same thing in other parts of the body. The remains of an old tooth in the jaw often gives pain in the eye.

It now only remains to discover the cause of the fourth symptom. What is the sterility due to? The discharge is quite sufficient to destroy the function of the zoasperms. We not only find sterility in such a case as the present, where the cervix is lacerated, but even when there is only a slight inflammation in the cervical canal. The discharge in this case is of a very ichorous character, and is quite enough to cause the spermatozoa to lose their vitality. When the seminal fluid, taken from the vagina, is examined a short time after coition, it is found full of devitalized zoasperms.

Here, then, we have everything from which this patient suffers accounted for. Now as to the treatment, which, of course, is intended to relieve her symptoms. Let us begin with the first one, the leucorrhœa. How can we relieve it? Only in one way, and not by treating the condition of the cervix as a granular ulcer, not by the hot iron, nitrate of silver, nitric acid, etc., but simply by restoring the cervix to its original normal condition. The vaginitis and vulvitis may be let alone, as they are but secondary results of the ichorous character of the discharge from the cervix. Remove the cause of the trouble, and you cure it.

Now as to the sterility. The same answer applies here. It may be a long time before these symptoms are relieved, perhaps six months or more, but eventually they will all disappear, when their cause is removed. Now as regards the condition of the ovaries. The state in which they are at present, it is highly probable, is due to the traumatism, and is reflex in character. When the cervix is restored, the



condition will probably be relieved, but if it is not, we may then try galvanism, counter-irritation, rest, etc.

I imagine some of you are already asking, would I not use vaginal injections? I would, but I would not rely on them. Suppose a dentist finds a tooth giving rise to supra-orbital neuralgia, he might certainly advise local applications, but if he acted intelligently, he would first remove the cause of the difficulty. He would treat the result afterwards. You may say that I am now talking as a lecturer, but let me say that I would speak to you in the same way in my office, in private. This woman will certainly get well if the lacerated cervix be attended to in the proper way. Unfortunately, we cannot operate here, and, in this woman's circumstances, it would not be advisable to do so at home, but she may go into the hospital, as we shall endeavor to persuade her, and there she shall be attended to.

#### UTERINE HÆMORRHAGE AFTER ABORTION.

The next patient presents a condition similar in its *pathology* to the last one in some respects, though as you will see the *symptoms* are different.

Mrs. Hannah S., aged 40, native of Ireland, married twenty years. Has had ten children and one miscarriage. The miscarriage happened the last time she was pregnant, which was three months ago. Her confinements have all been pretty easy labors except the last one, which was about three years ago. She has been sick for the last three months, in other words, since her miscarriage. She complains chiefly of flooding. She also says that occasionally something seems to loosen in her throat, and then falls down. This is probably one of those obscure reflex nervous troubles that are so frequently seen in uterine disease. She likewise complains of great weakness, and is afraid to do any housework for fear her strength will give way. She could attend properly to her work before three months ago, but since that time she has flooded continually, and has lost considerable blood. If you look at her face, you see how pale and weak she looks, and you see right away that she must have lost a quantity of blood. The pulse is weak and rapid.

Now, gentlemen, you have heard her history. The tenth labor, three years ago, was the hardest of all. Three months ago she had a miscarriage and has been an invalid ever since. She has lost blood, not only at her menstrual periods, but all through the month.

Examination shows that the perineum is ruptured all the way down to the sphincter ani. The vagina is long and flabby, and there is slight rectocele. There is a large sub-involuted vagina which has grown lax and feeble from many parturitions, and the injury inflicted on the perineal body. Here is a woman who, according to her own story, has been well and suffered no inconvenience for three years, for at least it must date from her last labor, with this condition of the perineal body, while the cervix uteri is in the same condition as it was in the patient who has just gone out. She has never had violent



leucorrhœa, and yet she has the same condition of things that produced it in the previous case. Here also, the uterus is in a condition of complete subinvolution. What was the cause of this? Perhaps it was not the laceration, for it did not cause it before the miscarriage took place. She has then, laceration of the cervix, subinvolution of the uterus, subinvolution of the vagina, and rupture of the perineal body, four conditions closely connected with each other, but yet she has not suffered near so much in comparison to the pathological state of her organs as the previous patient. Here is a contrast which often occurs, and it teaches an important lesson. In gynecology do not look for mere pathological facts, but for pathological conditions which give rise to symptoms from which the patient suffers. You may find a fibroid tumor in the uterus, but it may occasion no inconvenience and have nothing to do with the symptoms for which a patient seeks relief, though it may be curious and interesting as a pathological fact.

But let us return to our case. This laceration, although it certainly exists, has not much relation to this woman's symptoms, and it is not the trouble for which she seeks our aid. Its cure will not, perhaps, relieve the other, and at present more important conditions. In this case let the cervix alone. Sew it up and do nothing more, and she will be just as bad as she was before. The hæmorrhage, which is her real trouble, may still continue, and she will have a just right to say that you have done her no good.

The woman comes to be relieved of certain symptoms which she has related to you, and your duty is to find out what is the cause of the hæmorrhage. The condition of the cervix is not causing it, as that has been there at least three years. The rupture of the perineum has nothing to do with it. The subinvolution of the vagina may likewise be excluded. It must have been something that occurred at her miscarriage. This is in all probability some alteration in the mucous lining of the uterus. In such cases it may be necessary to dilate the cervix with a sponge tent and examine the uterus, but do not use the sponge tent unless you are forced to do so. It is a decidedly dangerous method of proceeding. Some years ago I used to use the sponge tent very frequently, and would speak of them carelessly and flippantly, regarding their use as a matter of little moment, but since then I have seen too many cases of cellulitis, too many cases of death following their use to talk about them flippantly now. Of course I have not entirely discarded their use; I employ them when necessary, but I recognize their danger, and am cautious.

The cause of this hæmorrhage might be a piece of placenta still remaining in the uterus, it might be no larger than the smallest joint of one of the fingers. About six weeks ago, a patient came from Highland Falls to consult me, and complained of a hæmorrhage after a miscarriage. I sent her home for the time being, gave her some ergot to take and told her to come back. She did not do so, but at the end of about a week sent me a piece of placenta which had been cast out by means of the ergot, and the hæmorrhage was cured. Such a

cause might be at work here, and if so it might be necessary to employ the sponge tent.

The most common cause of such a hæmorrhage, however, and I speak, having in mind the results of a long experience, is a fungoid growth in the mucous membrane of the uterus. So the first thing you should do is to take a copper wire curette by which you can scrape out the cavity of the uterus, but you can never do any injury to it. This instrument is entirely harmless, as it bends on the slightest pressure. In this case I used it, and said to my assistant at the time, that if we found nothing, we should have to use the sponge tent.

Here you see the result of the operation and the cause of the hæmorrhage. Here are a number of fungoid growths, that we scraped out of the uterus. They are hypertrophic elongations of the lining membrane of the uterus, little polypi. It may be that if they were left in situ, they would become true polypi, but of this I have no proof. Now, if I get all of these growths out of her uterus, the hæmorrhage will be entirely relieved.

How about the perineum and cervix. Well, we may cure them, but why should we operate if she does not suffer from them? Suppose all these fungoid growths are removed, she will get entirely rid of her hæmorrhage and will soon recuperate and regain her health and strength. She thinks she would be entirely well if this hæmorrhage were stopped. The thought comes into your mind how much better she would be if perineum and cervix were restored, but remember that it was not on their account that she sought relief, but if after all she thinks their restoration would benefit her, then you may attend to them.

#### PRURITUS VULVE.

The next case that I shall show you is one of very long standing, and also one that is very commonly met with, yet the more books and authorities you consult in regard to it, the worse off you will generally be, there are so many divergent opinions concerning its pathology, and so many different ideas as regards its treatment.

Mrs. M. C., æt. 50, native of Ireland, married 26 years, has had seven children and one abortion. The last child was born seven years ago. She says she has been sick for twenty-six years, so I think we are right in calling the case a chronic one. She has but one symptom and that is an excessive itching of the vulva. This pruritus vulvæ is so bad that it is the bane of her existence, and if you cannot give relief, and very frequently you cannot, you can see what a terrible bane it is. The itching is sometimes so bad that it keeps her awake for hours at night, and she is obliged to scratch herself almost all the time. She passed the change of life, or, as we call it, reached the meno-pause a year ago, but this made no difference in the condition of the parts. She has been much worse at various times than she is at present. She says she has no itching in other parts of her body.



Now let me tell you what an examination showed us. The patient being placed upon the back, the finger placed in the vulva. The labia majora were found to possess exquisite sensibility, the slightest touch giving pain. The finger being carried into the vagina, a free leucorrhœal discharge is found. The uterus has undergone physiological atrophy at the meno-pause, but the cervix is found uncommonly large, and when the speculum is introduced it is found to be the seat of intense inflammation, and the vagina likewise is in a similar condition. All the parts around the vulva are almost in a condition of eczema, the surface is so intensely red. The constant scratching with the nails has tended greatly to aggravate this condition. Now what is the cause of this pruritus, for that is what we must seek for; the pruritus being only a symptom produced by some cause that we must find out, if we can.

Some years ago a woman came here almost wild from loss of sleep and opium eating. The parts were terribly excoriated with the nails, and were in a fearful condition. In her case, I ran over all the causes and could not fix on any of them, and finally thought of diabetes. I obtained some of her urine and had it examined, and it was found to contain sugar.

I simply mention this case to tell you and to impress upon you the fact, that you must always look for a specific cause. If you look at your books and glance over the number of prescriptions given for this symptom, and perhaps choose one of them, such as biborate of soda, or bichloride of mercury, and order it to be applied, you will have done just nothing at all for your patient in most cases. Sometimes by looking at once for the cause, you can cure a case instantly that has lasted for months.

Sometimes in looking carefully, you may find pediculi in patients in whom you would least suspect them. In such a case a single application would be sufficient to relieve the patient. In many cases the pruritus is continually aggravated by the constant scratching with the nails.

I simply wish to call your attention to the absolute necessity of discovering a cause for this distressing malady.

Another cause that is not so frequent as those I have mentioned is true eczema. If this be the condition giving rise to it, do not treat the pruritus, but the eczema itself. Give arsenic, recommend proper diet and hygienic habits, keep the skin in constant activity, and the symptom will disappear, but under no local applications would it be cured. Other skin diseases may likewise be the cause, but if so, treat them and not the pruritus.

The most frequent of all causes is vaginal leucorrhœa, and there is a peculiar kind of vaginal leucorrhœa that is extremely liable to cause it. The discharge in such cases is extremely ichorous and irritating. I do not know the true cause of this peculiar quality, but it is so marked that sometimes even on your finger it will cause irritation, and it often requires considerable washing to prevent this irritation. On



coition this discharge may give rise to gonorrhœa in the male. A true urethritis may be set up, which, however, is not usually so bad as a specific gonorrhœa as shown in the comparative ease with which it yields to treatment.

Sometimes this leucorrhœa is but slight in amount, but still it is extremely irritating. It is amply sufficient to cause irritation and excoriation of the vulva as I have often proved to my satisfaction. If you wish to test the truth of this, simply tampon the vagina thoroughly for a short time and the patient will get relief. The discharge is thus dammed up and cannot come in contact with the parts to excoriate them.

What is the pathology of this case? The eczema of the vulva and thighs is due to this woman's nails. The constant scratching here, kept up for twenty-six years, accounts for it easily enough.

Now as to the treatment. Tamponing the vagina will not cure the case, and local applications will not do it for the simple reason that none of these means will stop the cause. The cause of this leucorrhœa must be removed, and this is a difficult thing to do. It may be impossible to cure it, but, at any rate, we can give some relief. I suspect there may be a polypus in this cervix, because it is so large, there may not be, however, and there may only be an inflammation.

We will give her biborate of soda as a vaginal injection, and once or twice a week we will expose the cervix, clean it thoroughly and touch it with a strong solution of nitrate of silver, or nitric acid, in the hope of changing the character of the inflammation. Then we will use a vaginal injection, and push up a large suppository containing five grains of gallic or tannic acid. This will prevent the free flow of ichorous mucus from the cervix and vagina. When this much is done for the cause of the trouble, then we may treat its results. These may be removed by your local applications outside, whatever one you give preference to, whether it be biborate of soda, or bichloride of mercury, or any of the others, it matters not which.

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## ORIGINAL ARTICLES.

### REMARKS ON HYSTERIA.\*

BY

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MR. PRESIDENT AND GENTLEMEN—The sketchy and disjointed character which you will remark in what I have to say is to be attributed to its hasty preparation—hasty from my having consented, at short notice, to supply a deficiency in the series of papers for our meetings.

\* Read before the Medical Journal Association, December 21, 1877.

In regard to the symptoms of the disease, nothing need be said of the convulsive form, for it is sharply enough defined and well described by a great number of writers. As to the other manifestations, however, my own observation leads me to think that well-marked globus is less frequent than would be inferred from most descriptions of the disease, whilst the reverse is the case with regard to pain and syncopal attacks. The pain to which I refer is well known as being more commonly situated in the back, (with tenderness over the lumbar, sacral, and coccygeal vertebræ,) in the hypogastrium, in one or both iliac regions, particularly the left, in the left infra-mammary region, in the epigastrium, in the occiput and nuclea, and in the neighborhood of the sacro-iliac synchondrosis of one or the other side—the frequency of its occurrence in these various localities following the order in which they are here enumerated.

In maintaining the frequency of syncopal attacks, I do not refer to seizures of well-marked syncope, although these are common enough in hysterical subjects, but to attacks of what may be called abortive syncope. The phenomena may be described as follows: The patient suddenly feels a horrible sense of impending unconsciousness, but full loss of consciousness never takes place. If standing or walking, she (or he, for this manifestation is almost equally common in the two sexes,) always feels as if she were about to reel and fall, (not to fall suddenly,) and frequently seizes some object, as a chair or railing, to support herself. Sometimes she actually falls, but she is always able to break the force of her fall by voluntary efforts and to call intelligibly for help. By an intense exertion of the will many patients are able to overcome the disposition to fall, and to conceal their apprehension of falling, but they cannot in the slightest degree avert the other phenomena of the seizure, although they may sometimes shorten their duration by a rapid succession of deep inspirations. These other phenomena are, a sudden pallor of the face, occurring at the onset of the attack, followed instantaneously by flushing of several minutes' duration; and, at the same time, a feeling as if the heart were about to stop beating, which also is only momentary and is followed by increased strength, but not usually by acceleration of the cardiac pulsations. These are the unvarying phenomena, but occasionally certain additional ones take place, such as choreiform twitchings of the muscles of the face or the upper limbs, always feeble, scarcely attracting the notice of a looker-on, and never tonic spasms. Exceptionally the seizure is preceded by an aura, generally referred to the hypogastrium. Many of these patients are more liable to be attacked when present at an assemblage of people, (notably at church, and more particularly upon changing from the kneeling to the standing posture,) and I am inclined to think that the dread of an attack under such circumstances is a powerful agent in determining its occurrence. A few are generally attacked soon after retiring to bed, but in such the seizure may always be prevented by the use of a moderate alcoholic drink.



The pathology of hysteria has been the subject of no little dispute. On the one side are ranged those who, whether trammelled by the etymology of the word and the fanciful traditions which have come down to us from remote antiquity, or by that over-weening absorption in a specialty which, even in this nineteenth century, leads men to repeat the old dictum, "*propter uterum est mulier quod est*," see in hysteria nothing but a train of symptoms directly dependent upon some disease of the genital organs. On the other side we find the strict neurologists, who, in my opinion, err just as widely in looking upon hysteria as an essential neurosis entirely independent of disease elsewhere than in the nervous system, and whose speculations as to aberrations of nervous force, etc., are little less grotesque than the ancient idea that the uterus was capable, in its autonomy, of retiring from the pelvis in disgust, and betaking itself to the gullet, there to tease and vex its unfortunate owner. It seems to me that the truth lies between the gynæcologists and the neurologists. I do not think that a brief and at the same time satisfactory definition of hysteria can be given, but I think that we may say that hysteria is an abnormal condition of the nervous system, in one or more of its parts, either inherited or acquired; that the reason of its manifesting itself almost exclusively in the female, is that its tendencies are more in consonance with the natural workings of the womanly than with those of the virile organism, and that therefore it meets in the former with less physiological (and in many instances with less volitional) resistance than in the latter; that it thus constitutes a latent predisposition to the phenomena which we recognize as hysterical—which phenomena may be evoked by emotional disturbances or by mal-nutrition, rarely, however, unless aided by positive physical disease in some part of the body, generally within the pelvis or the abdomen—notably the former. Such disease may be of little moment in itself. Indeed, my observation leads me to agree with those who state that hysteria is more apt to be developed by the slighter than by the severer diseases of the abdominal and pelvic contents—or rather, I would say, by those affections which, while they may ultimately prove serious, are for the time being giving rise to little, if any, local manifestation of trouble. Such disease may be nothing more than functional, for I have seen well-marked hysterical symptoms subside at once, never to re-appear, upon relieving a distended colon.

As to the element of perversity, I believe that it exists much more rarely than many physicians seem to think. True, many of the manifestations of hysteria may be more or less controlled by an exertion of will on the part of the patient, but such exertion must be extraordinary in degree, such as we have no right to expect from an enfeebled and long-suffering woman. Under the influence of some unusual stimulus, such as the dread inspired by the mention of some barbarous method of treatment, the patient may make such an extraordinary exertion of will, with the effect of overcoming the symptoms; and she is rewarded with the insinuation that she has been



a maligner ! Do we not all know that a drunken man may often be sobered at once by a profound and startling impression upon his mind ? Are we, therefore, justified in assuming that his drunkenness was feigned ? Great harm has been done by the undue stress which has been laid upon the power of the will to control hysterical symptoms, whereby the laity have imbibed the idea that to be hysterical involves a certain amount of culpability. The consequence is, that we are often debarred from giving to a woman who, far from wishing to magnify and prolong her ailments, is exceedingly anxious to be rid of symptoms which seem to her the harbingers of some dreadful brain disease, that consolation and encouragement which she ought to draw from the information that her malady is nothing more serious than hysteria; for, no sooner is this announcement made than she looks upon herself as being accused of a sort of fraud, and, being well aware of the groundlessness of such a charge, naturally feels hurt and seeks other advice.

In the treatment of hysteria, I regard it as of the first importance that the patient should be informed of the nature of the ailment, care being taken to disabuse her of the notion that any stigma attaches to the disease. We should not make light of her actual sufferings, but only of her gloomy forebodings. Careful search should be made for disease of any organ. As I have already stated, it will generally be found within the pelvis, and it should be made the subject of treatment, for, if neglected, it will seriously interfere with the effects of measures addressed to the nervous system, and moreover, in itself it demands attention, for diseases of the uterus show little or no tendency towards spontaneous recovery, but rather incline to become obstinate and serious. How absurd and hazardous is it to disregard the condition of the pelvic contents, and order exercise, on horseback, perhaps, when, at every step, an engorged uterus is dangling from a thickened broad ligament, and liable at any time to occasion an hæmatocele or some other serious accident.

Together with appropriate treatment of any local disease which may be discovered, the patient's general nutrition should claim careful attention. Hysteria has been looked upon as the result of luxurious living. The fact is, however, that it is more prevalent among the poor than among the rich. Far from reducing the diet, I think it is best to encourage the liberal use of the most nutritious food, provided it be easily digested, well assimilated, and the waste products of its metamorphosis duly voided. Alcohol, preferably in the form of spirit, is generally beneficial at one period, or another in the course of the affection, care being taken that the single doses shall not be large enough to produce flushing, headache, or other manifest effect. Cod-liver oil is also of great service. As regards drugs, I consider arsenic as altogether the most serviceable of those that I have used, but I confess that their number is few. For overcoming pain, it seems to me that electricity is the most useful measure, and I have found the galvanic current more efficient than the faradaic. In the

few instances of hysterical convulsions in which I have employed pressure over the ovaries, I have not observed any effect from the proceeding.

As to the question of marriage, discussed by so many writers, I have never advised that measure, and I think that the cases must be exceedingly few in which such advice would be judicious. If there be disease of the uterus or its appendages, it is likely to be aggravated by marriage, and as to any benefit likely to be derived from gratification of the sexual desire, I wish to record my decided conviction that women, with very rare exceptions, are not much troubled with desire for sexual connection.



## HOSPITAL RECORDS.

### ROOSEVELT HOSPITAL, NEW YORK.

Reported by W. B. BERRY, M. D., House Surgeon.

#### LIGATION OF THE FEMORAL ARTERY FOR FEMORAL ANEURISM—LISTER'S ANTISEPTIC METHOD—SERVICE OF DR. T. M. MARKOE.

John Murphy, Ireland, aet. 30, married, tailor. Patient states that sixteen years ago he first noticed a small pulsating swelling, size of walnut, on his right thigh. He locates it as then existing at upper limit of the patella, about two inches above the internal condyle of the femur. He says that while following his trade he continually used a heavy tailor's iron, which he rested on the lower end of his right thigh. He gives no other traumatic cause for the tumor. The swelling gradually grew larger, till two months ago, when it rapidly increased in size and became painful.

For last two weeks pain has been severe, and he has been unable to walk but a short distance, the power of using the limb suddenly giving out and compelling him to stop and rest. Family history good, and denies syphilis. On admission, there is well-marked pulsating tumor on anterior surface of lower end of right thigh. Its centre is just below a point over Hunter's canal, and is evidently an aneurism of femoral artery at this point. It extends well downward toward knee, pushing the patella down and outward. The tumor is well described seventeen and one-quarter inches in circumference, including the thigh, and about six inches in length. It is rather soft; ceases to pulsate on pressure on the femoral artery above, and in this condition can be much reduced in size by pressure.

There is a well-marked bruit over the tumor, extending up toward the artery.

There is no oedema of leg below, but the superficial veins are enlarged. Pulsation in both anterior and posterior tibial arteries is.



normal; *urine negative*. *Treatment*—Rest maintained in bed and patient put on liberal and nourishing diet.

*October 19.*—General health and tone improving. Size of tumor, (seventeen inches,) slightly diminished.

*October 25.*—Digital compression of femoral artery at Poupart's ligament and on inside thigh attempted, and after an hour's trial it was impossible to control the circulation, the arterial tension being so great. The attempt was given up, but the tumor became firmer and pulsated less. Size, same.

*October 28.*—Esmarch's bandage was put on from the toes over the tumor, well up on the thigh. The bandage was left on one-half hour and then removed, but circulation was stopped for one and one-half hours longer by the rubber cord, the patient being under ether. At the end of this time pulsation was decidedly less in the tumor, which was firmer.

*October 29.*—Pulsation in tumor about same as before. Esmarch's was applied. Tumor is firmer. Size, sixteen and one-half inches.

*October 30, 3 p. m.*—Patient under ether. Ligation of femoral artery in Scarpa's triangle performed by Dr. Markoe, assisted by Dr. Sands: An incision three inches long was made over the sartorius muscle on inner side of the thigh. The skin, fat and connective tissue were at once cut through, exposing the sartorius muscle covered by its sheath with its fibres running diagonally across the thigh at the upper third. Its sheath was opened, the muscular fibres pushed aside, and the connective tissue on its posterior surface carefully cut through. The femoral artery then came into view, and could be felt and seen pulsating, being of large size. The sheath of the artery was then opened, with the back of the scalpel toward the vessel. The aneurism needle was then forced around the artery from within outward, and the carbolized gut ligature tied. In tying the ligature, only sufficient force was used to stop the circulation, but not enough to break the inner coats. Catgut sutures were used, the wound covered by the protective, and Lister's dressings applied.

The operation was done under carbolized spray and with all Lister's precautions; 6 p. m., pulse, 100, Temperature, 104°. Given hypodermic Magendie, eight minims.

*October 31, 9 a. m.*—Pulse 84, Temperature, 98 $\frac{3}{4}$ °. Patient passed a comfortable night. Seems in very good condition. Wound was redressed. Slight serous discharge. Looking very quietly, indeed.

*November 1.*—Feeling "first-rate." Pulse and temperature about normal.

*November 2.*—Circulation in the leg very good. There is no œdema nor recurrent pulsation in the tumor. The aneurism sac feels firm, and size of tumor sixteen and one-quarter inches.

*November 3.*—Redressed. There is primary union along the whole face of wound. Discharge inconsiderable. Sutures left in. Patient with appetite good and in best of spirits.



*November 5.*—Complains of no pain. Size of tumor sixteen and one-eighth inches.

*November 6.*—Redressed. Gut sutures all softened off. Looking very quiet. Primary union seems firm. Lister renewed.

*November 8.*—Lister's dressing discontinued. Union perfect: cicatrix dressed with sheet lint and strap. There appears to be slight recurrent pulsation in the tumor, (nine days after ligation;) size same, sixteen and one-eighth inches.

*November 10.*—Pulsation in the tumor more marked, but slight as compared to that before ligation. There is no pulsation in femoral below the seat of ligation.

*November 13.*—Size of tumor, fifteen and one-half inches.

*November 16.*—A flat bag of shot of ten pounds placed over the tumor, with ice bag applied to the shot.

*November 17.*—Pulsation slight. Size, fourteen and three-fourth inches.

*November 26.*—Pulsation still slight; size, about same, fifteen and one-eighth inches.

*December 1.*—Size same. Pulsation has ceased.

*December 7.*—Discharged; cured.

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## EDITORIAL.

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### HEALTH OFFICER OF THE PORT.

This important office has virtually been vacant since the spring of 1875, when Dr. Vanderpoel's term expired. Ex-Governor Tilden at that time nominated Dr. Austin Flint, Jr., to fill the position, but on account of difficulties between the Governor and Senate, the latter declined to confirm the nomination. The governor failed to submit another name for approval, and consequently Dr. Vanderpoel continued in office until the inauguration of Governor Robinson. It was now hoped by the leaders of both political parties that the newly elected governor would settle the matter amicably, by presenting to the Senate the name of a person which it would confirm, but Mr. Robinson thought proper to submit the name which had been sent back to Gov. Tilden two years previously. There being every reason to believe, however, that the Senate would not confirm the nomination, Dr. Flint's name was withdrawn before it was acted upon. It was, however, sent a second time to the Senate by Gov. Robinson, who has again withdrawn it. So the matter rests to the present day, Dr. Vanderpoel filling the office until a successor shall be appointed.

As there is at present no probability that the Senate will confirm the nomination of Dr. Flint, many names are being urged upon the notice of Gov. Robinson, and it is to be hoped that he will present the most suitable one for confirmation at an early day.

In the choice of a candidate, the Governor should not be expected to rely upon his own knowledge of the medical profession, nor upon that of his cabinet, to decide upon the person best fitted to fill this important position, and we take it to be the duty of the profession, and medical press, to assist him in determining upon the abilities of those that may be urged for nomination.

The following names are rumored as being strongly pressed upon the Governor's notice at present: Dr. Austin Flint, Jr., of New York; Dr. Paine, of New York; Dr. Horatio Robinson, Jr., of Auburn; Dr. Wilder, of New York; Dr. Alex. Hutchins, of Brooklyn; Dr. Frank H. Hamilton, of New York; Dr. Wey, of Elmira; Dr. W. A. Hammond, of New York; and Dr. Jones, of Albany.

We fear that Mr. Robinson will fall into a very grievous error, if the rumor be true that he intends to nominate Dr. Paine, of this city, a homeopath, and for many years the family physician of the Governor. We commend the Governor's gratitude and friendship, but in filling such an important office as that of Health Officer of the Port of New York, friendships should not be considered. What the citizens want is to have the office speedily filled by a thoroughly capable and experienced man. If the Governor nominates for the office an unknown member of a school founded upon an exclusive dogma, he will just as certainly have the name of the candidate returned to him. To substantiate our statement, let him investigate the fate of the bills that have been presented to the legislature by the homœopathic school. Almost all of them have been defeated by the members of the scientific school of medicine. It is not our purpose here to discuss the justice or injustice of this course, we merely wish to point out the fact, in order that the Governor may take advantage of it. Our remarks apply with equal force to Dr. Horatio Robinson, Jr., of Auburn, a homeopath; and with still greater force to the name of Dr. Alex. Wilder, of this city, who is classed as an "irregular."

Of Dr. Hutchins and Dr. Jones we have little to say. They are unknown outside their own immediate circles, and although either of them might be able to fill the position satisfactorily, neither the profession nor the laity have ever had any evidence of their ability. Besides this Dr. Hutchins is a member of the Democratic party and we do not think the Governor would risk his name, suddenly brought from obscurity before a Republican Senate.

Dr. Wey, formerly Mr. Robinson's family physician, is, we believe, also a candidate for the nomination. He is undoubtedly a man of some ability, but he cannot bring with him that long experience in sanitary matters that such men as Hammond, Hamilton and Flint, can. We think, therefore, that Dr. Wey will have to retire to guard against being obscured by the greater lights.

We are now narrowed down to Drs. Hammond, Flint, and Hamilton, whose names, it is rumored, are at present very strongly urged. We doubt whether Dr. Hammond would consent to his name going before the Senate, and are quite certain that it would not be confirmed



should it be sent there; and as regards Dr. Flint's fitness for the position we have not the slightest doubt. Thoroughly scientific, with an amount of energy and executive ability seldom seen in a profession like our own, we feel sure that, if Dr. Flint's name were confirmed, he would not fail to discharge the duties of the office to the entire satisfaction of the State. But it is now well-known that the Senate is not inclined to look favorably upon his nomination, and it consequently becomes necessary for the Governor to submit another name, and of those reported as having been brought to his notice, none is more worthy the honor than that of Prof. Frank H. Hamilton, of this city. This gentleman is too well-known, not only in this country, but throughout the civilized world, for us to call attention to his fitness for the position. Few men have devoted a life to their profession and humanity as wholly as he has. As an author, military and civil surgeon, and teacher, the profession has long since accorded him the highest rank. As a sanitarian we believe Dr. Hamilton has few equals, and no superior. His work upon "Military Surgery and Hygiene" gives evidence throughout of his keen observation of the causes of ill-health among the troops, and the paramount utility of the measures he adopted to bring about a reform. His experience as medical inspector during the war of the rebellion, and the reputation he then achieved as a sanitarian, resulted in the Commissioners of Public Charities and Correction of New York choosing him, during the cholera epidemic of 1866, as Chairman of the Committee of Medical Inspection. The manner in which he fulfilled the duties of this office is best shown by the following extract from the report of the Commissioners to the Legislature. In speaking of the cholera, they say, (*vide Seventh Annual Report, page 15,*) "And in this connection it is proper to advert to the invaluable services of Dr. Frank H. Hamilton. When the cholera broke out, isolated hospitals were at his instance and under his directions established, a code of sanitary regulations formed by him was adopted, and radical changes in diet, and in the forms and hours of labor, at his suggestion, were made. To his resolute and intelligent action may be attributed the arrest of the disease, and so confident was he of the efficacy of his proposed treatment, that he foretold the number of days in which the disease would disappear. The last case occurred within twenty-four hours of the period he had designated."

In addition to these facts, we may call attention to his efforts at reform in sanitary matters in this city, during the past two years, which have shown still further his clear views in regard to these matters, and an indomitable perseverance in carrying out his ideas.

If Gov. Robinson would consult both the wishes of the medical profession and laity, he would nominate Dr. Hamilton, as the most suitable of those who have been brought to his notice, and in our opinion the most capable person to fulfill the duties of the office. In addition to carrying out the wishes of the citizens in this matter, the



Governor would meet with no opposition from the Senate on party questions, the doctor being a Republican.

We sincerely hope that this matter will be amicably settled before long, and that the Governor will see fit to make a nomination which will adjust the difficulties existing between himself and the Senate, and at the same time give entire satisfaction to the citizens of the State.

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## PERISCOPE.

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### COLLABORATORS.

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*Dermatology*.—HENRY G. PIFFARD, M. D., Professor of Dermatology in the University of New York.

*Diseases of the Nervous System*.—EDWARD C. SEGUIN, M. D., Professor of Diseases of the Nervous System in the College of Physicians and Surgeons, New York.

*Diseases of Women and Children*.—FRANK P. FOSTER, M. D., Gynecologist to the Out-Patient Department, New York Hospital.

*General Surgery*.—EDWARD J. BEEMINGHAM, M. D., Surgeon to the Good Samaritan Hospital for Diseases of the Rectum, and to the Out-Patient Department, Bellevue Hospital, New York.

*Genito-Urinary Diseases and Syphilis*.—ROBERT W. TAYLOR, M. D., Professor of Dermatology in the University of Vermont.

*Ophthalmology and Otology*.—S. B. ST. JOHN, M. D., Assistant Surgeon to the New York Eye and Ear Infirmary.

*Orthopedic Surgery*.—NEWTON M. SHAFFER, M. D., Surgeon to the New York Orthopedic Dispensary and Hospital.

*Practical Medicine*.—E. DARWIN HUDSON, JR., M. D., Professor of Practice of Medicine, Woman's Medical College, New York.

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## RELATIONS OF OPHTHALMOLOGY TO GENERAL MEDICINE.

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J. Hughlings Jackson, in his annual oration before the Medical Society of London, discusses at some length the Relations of Ophthalmology to General Medicine, noting the importance of discovering errors of refraction, and mentioning a case coming to Brudenell Carter with supposed cerebral disease, which was found to be simple myopia. In this case, the patient came to Mr. Carter, not on account of trouble with his eyes, but because he had heard that ophthalmic surgeons had an instrument useful in investigating brain disease. He instances also the case of a medical student affected with persistent vomiting and frontal headache; vision good, both for near and distant work, but hypermetropia and astigmatism existed, and when suitable glasses were supplied, the vomiting and headache stopped, and he resumed work after two years enforced idleness. Dr. Jackson thinks the evidences of neuritis from strain on the ciliary muscle in hypermetropia throw light on cases in which functional abuse leads to paralysis, as in writer's cramp, or in congestion and œdema of the brain from overwork. There is danger too, of mistaking for cerebral disease the giddiness, irregularity of gait and confusion of sight, arising from slight paresis of ocular muscles. This vertigo is not from diplopia, as so commonly supposed, but from false estimates of the

position of objects by the affected eye; the position being judged of by the amount of nerve force exerted to bring the eye to bear on the object. If the object be upon the same side with the weak muscle, an unusual amount of nerve force must be employed to turn the eye toward it, and the brain, judging by the old standard, conceives the object to be much further removed from the median line, (in case of the paralysis of the external rectus,) than it really is. This vertigo is, physically considered, a *motor* symptom, not *sensory* as is commonly supposed. Also from what is called secondary deviation in paralytic strabismus, *i. e.*, over-action of one muscle when its paralyzed congener is sought to be brought into action, may be deduced a principle of nervous action, *viz.*, that when a centre discharges itself and one route for the current is closed, the current flows in other directions, and thus the gait in locomotor ataxy may be explained. In speaking of the ophthalmoscope he says it should be used by routine in intra-cranial diseases, instancing optic neuritis as sometimes an early symptom of locomotor ataxy, and saying that the process of embolism may be here fully studied. (A good article on this subject by Noyes, of New York, may be found in the *American Journal of Medical Science*, for October, 1877.) Tubercles in the choroid in cases of acute tuberculosis may confirm a doubtful diagnosis, as may also the evidences of syphilitic choroiditis, (described by Hutchinson,) in cases of suspected hereditary disease. The well-known retinal changes in some cases of chronic Bright's disease are also mentioned, and attention called to the fact that though usually a late symptom it is not very uncommon for the ophthalmic surgeon to be the first to suspect renal disease, as the changes are generally found with the small kidney and not accompanied with dropsy.

S. B. ST. J.

### PIGMENT OF THE RETINA.

The coloring matter of the retina has received a great deal of attention at the hands of physiologists lately. Until recently, it was supposed that the retina was destitute of pigment, because when the eye is examined under ordinary conditions, none is found. Recent investigations have demonstrated the existence of a pigment highly sensitive to light, which discolors it. W. Kuhne, of the Phys. Inst. of the Univ. of Heidelberg, in the *Klin-Monatsblätter für Augenheilkunde*, says, "A colored rabbit was securely fastened opposite a square opening cut in a window shutter, the head covered for five minutes with a cloth, and then exposed for three minutes. The head was then cut off, and one eye enucleated under sodium light, and placed in a five per cent. solution of alum. After two minutes, the other eye was treated in the same way. The next morning the outside of the retina showed a clear square spot in the second eye, quite white; in the first, somewhat pink." In subsequent experi-



ments, he got more perfect pictures of the window, showing the cross-bars of the sashes in delicate pink lines. He gives this process the name of optography.

In a later report, Kuhne announces the extension of his investigation to the human eye, in the case of a hospital patient who died in the night. Upon examination of the eye under sodium light, the pink coloring matter was found in abundance except at the macula. The pigment could also be recognized with the microscope.

Capranica Stefano (*Annales Oculistiques*) finds the pigment insoluble in water, alkalies or acids, but soluble in alcohol, ether, chloroform or bisulph-carbon making a golden-yellow solution. Concentrated sulph. acid changes it to violet. Nitric Acid makes it blue and then decolorizes it. Solution of iodine changes it to green. These reactions are the same as those with pigment from birds and reptiles. The spectroscope shows two absorption bands, the bands being identical with solutions from frog, lizard and chicken. Spectroscopically and photo-chemically, this substance corresponds exactly with the luteine described by Hoppe-Seyler and Thudicum, and found in the corpus between the yolk of egg, the serum of blood, butter and adipose tissue, as well as some ordinary vegetable. Finally Capranica thinks he has found "that there exists already in the ovum a coloring matter, destined to enter into the composition of the future retina."

S. B. ST. J.

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### OPTIC NEURITIS FROM LEAD POISONING.

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Galezowski (*Revue d'ophtalmologie*) describes a form of progressive atrophy of the optic nerve from lead poisoning, associated with muscular atrophy and paralysis. The lesions are caused by salts of lead lodged in the nerve tissue. The disturbances of vision resemble those of hysteria. The lesion is supposed to be in the brain and not in the optic nerve primarily, the optic neuritis being secondary. The same author advocates the use of the thermometer in ophthalmology, using an instrument small enough to go between the eye lids, and says that the eye undergoes more variations of temperature than any other organ, and often without participation of any other organs. The temperature rises or falls one or two degrees, or even two and one-half degrees centigrade, especially in the course of catarrhal conjunctivitis of iritis or irido-choroiditis. We cannot yet tell what may be the real value of its use. The normal temperature of the eye is thirty-six five-tenths and thirty-six seven-tenths. As general conclusions, he gives: *First*—The temperature of the eye increases eight-tenths to one degree in all affections with free discharge. *Second*—In certain inflammations of iris choroid and cornea the temperature is same as general temperature, or below it. *Third*—The temperature of the eye rises or falls as the disease aggravates or diminishes.

S. B. ST. J.



## VEREBÉLYI ON TREATMENT OF CONGENITAL CLUB-FOOT BY SUBPERIOSTEAL REMOVAL OF THE ASTRAGALUS.

(*London Medical Record*, November 1877.)

The author describes a case of double talipes in a child five and one-half years old. Tenotomy and the application of a plaster of Paris bandage having failed, the astragalus of one foot, which presented the principal obstacle to reduction, was laid bare by an incision, and, the periosteum having been stripped off, was removed. The foot was then brought into proper position, in which it was retained by a fenestrated plaster of Paris bandage, and afterward by a proper apparatus. After the healing of the wound, the foot easily preserved its proper direction.

N. M. S.

## PIROGOFF'S OPERATION FOR CLUB-FOOT.

(*London Medical Record*, December 15, 1877.)

Dr. Weinlicher showed a patient to the Imperial Royal Medical Society of Vienna, on both of whose feet he had performed Pirogoff's operation, on account of a high degree of club-foot. In both instances he had fixed the os calcis to the bones of the leg by means of pegs, and thus produced ankylosis. Unfavorable circumstances delayed healing for two months in one foot, and three months in the other; and while the plastic result was good, the function of the limb was not restored, though improvement was to be expected. There was much tenderness in the heel.

N. M. S.

ERRATA.—In Dr. Hamilton's paper on "Alimentation in Surgical Accidents," etc., read before the Academy of Medicine, and published in the last number of this journal, page 32, fifteenth line, for "or of chronic," read *or of acute or chronic*; page 34, fifth line, for "one change," read *the change*; twenty-sixth line, omit "digestion and assimilation wait on appetite; page 35, seventh line, for "rich," read *sick*; thirty-second line, for "so far inferior," read *far inferior*; page 38, before the seventh paragraph, add, *I will make the following brief summary*; page 40, seventh proposition, read "morphine and *other* narcotics." There are a few other minor errata, which the reader will be able to correct himself.

# THE HOSPITAL GAZETTE

AND

## ARCHIVES OF CLINICAL SURGERY,

A Semi-Monthly Journal of Medicine and Surgery,

EDITED BY

EDWARD J. BERMINGHAM, M. D., and FREDERICK A. LYONS, M. D.

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### LECTURES.

#### CLINICAL LECTURE ON NEW REMEDIES,

Delivered at the Pennsylvania Hospital,

BY

JACOB M. DA COSTA, M. D.,

Professor of the Theory and Practice of Medicine in the Jefferson Medical School, Philadelphia.

I. CHRYSOPHANIC ACID IN CHRONIC PSORIASIS. II. ERGOT IN DIABETES INSIPIDUS. III. JABORANDI IN PLEURAL EFFUSION.

To-day's lecture might, with propriety, be called a clinic of new remedies. I wish to call your attention to three very interesting cases in which new remedies have been successfully employed.

#### CHRYSOPHANIC ACID IN CHRONIC PSORIASIS.

J. B., aged 27, a teamster by occupation. The history of this case extends a long way back. The patient tells us that during the hot weather of July, 1867, his hair all fell out and an eruption appeared on his scalp. He says that he thinks he contracted the disease from

a friend, (not a female friend,) who was afflicted in the same way. He utterly denies any syphilitic contagion, says that he never had any sore throat, and that there were none of the other constitutional symptoms present. After several months had passed, the eruption left his head, and the hair grew again thickly. There was no local application made at the time, except salt and water, and no internal treatment whatsoever. After leaving his head, the eruption appeared on his legs, and has remained there ever since. About six months ago he was admitted to the hospital for the first time. His arms, legs and trunk, were then covered with the eruption. This eruption was reddish and scaly; the skin was thickened, brazed, and fissured. The eruption was least visible upon the scalp and forehead, and was most characteristic about the joints, particularly the elbow joints. The man had been using a great variety of remedies with no success at all. Among other things he had tried arsenic, in the form of arsenious acid, and also the so-called "Asiatic pill," but everything failed utterly to do him any permanent good.

I then determined to make trial of a remedy which I had seen highly recommended in one of the English journals, viz: chrysophanic acid ointment. I used the ointment with a strength of one drachm of the acid to one ounce of simple cerate, and caused it to be well rubbed into the skin of the whole body every evening. After several days' use of this ointment, the skin became much paler and smoother, and the scales began to disappear. Unfortunately the man took it into his head to leave us just at this juncture, and he has been entirely lost to our sight until to-day, when he again came back to the hospital, and I hope will stay with us long enough to enable us to thoroughly test the value of this new remedy.

Now that he is stripped, you see what a marked case of the disease he presents. There is no healthy skin left upon the body, except upon the front and upper part of the chest, the face, forehead, scalp, and hands, all the rest of the body is covered with rough, uneven, reddish scales. You see that the eruption presents the most typical character, just about the elbow joints. The case is not nearly so bad to-day, however, as when we began the treatment.

I shall place the man once more upon chrysophanic acid. For purposes of cleanliness merely, I shall order him a lukewarm bath daily, in which he must remain for ten or fifteen minutes. After his baths I will have him rapidly, but thoroughly, dried. During the second week of treatment, I will have the bath rendered very slightly alkaline, by putting, say one-half ounce of the carbonate of potassium into the water. Then I shall cause the man to rub the chrysophanic acid ointment carefully into the skin of his whole body. Every evening, in the course of a few applications, I think the improvement will be marked.

#### ERGOT IN DIABETES INSIPIDUS.

This man was admitted to the hospital on November 26th, 1877.



He was then in very poor health, complaining of the daily passage of very large quantities of urine—ten pints daily. He was only moderately thirsty, and averred positively that he passed more water than he drank. The loss of flesh was marked, and there was some irritation of the neck of the bladder. His bladder had been upon several occasions sounded for calculi, but none had been found. Under my direction, the case was carefully watched, and it did really seem as if the outgo was greater than the income of water—the man passed daily ten pints by actual measurement. There was not a particle of sugar or albumen in the urine. I at once recognized the case as one of diabetes insipidus, or polyuria. This disease consists in the passage of large quantities of urine, containing no albumen nor sugar, and is attended by wasting as in true diabetes. It is often found in combination with actual disease of the nervous system, and is generally a condition very difficult of eradication.

As a venture, and upon general principles, I placed the man upon fluid extract of ergot, which treatment had been followed by striking success, *i. e.*, complete cure, in two cases in my private practice. I put him upon an initial dose of half a drachm of the fluid extract, thrice daily, the dose to be increased gradually; increased in size, first, to one drachm, and then to two drachms. There was at once apparent, a great reduction in the quantity of urine passed daily. From ten pints it fell to six pints daily, then to three, where it now stands. Even before reaching the present limit, I ordered the dose to be gradually reduced in size, first to one drachm, and then to half a drachm. Then it was stopped altogether, and mint water substituted in its place. This mint water, employed as a slight stomachic, is all that the man is now taking. For the past two weeks, he has had no ergot, and I may, therefore, consider him permanently cured. The amount of urine daily passed varies between two and three pints, that is, the amount is just about normal. Within the past week, he has had an operation for phimosis performed on him by the resident surgeon, which he has stood very well. He leaves the hospital, to-day, entirely cured, and strong—feeling better than ever in his life before, so that I have every reason to hope that the cure will be permanent. For the last two or three days, the man has been taking a tablespoonful of cod-liver oil, thrice daily—this to strengthen his digestion and general system.

#### JABORANDI IN PLEURAL EFFUSION.

I. L. C., aged 23, a weaver by trade, was much exposed last summer to wet weather, while at the seashore. Has had occasional cough and pains in the left chest, during the fall. The pain was, at times, so severe, that he had to lean his breast against a beam while weaving. These pains finally rendered it necessary for him to give up his trade. Within the past four or five months, he has had dyspnoea, and has noticed blood in his sputa. Three months ago, he was admitted to another hospital in this city. While there, his

thoracic symptoms were found to depend upon the presence of a large pleuritic effusion. Aspiration was performed; and thirty-six ounces of a clear, serous fluid was drawn off. After this operation, the shortness of breath, chills and pain speedily ceased, and he was discharged, apparently well. Since then, there seems to have been a return of the effusion, for he tells us that the pains and dyspnœa came on again.

He was admitted to this hospital on December 29th of last year, suffering from severe pain and dyspnœa, chills, and general wretchedness. His temperature was  $101^{\circ}$ , and percussion showed that his left chest was full of fluid. I was tempted to perform aspiration at once, a second time, for the effusion extended very high up, and his heart was pushed far over to the right; the expiratory murmur also was very feeble. I have, however, so often been able to notice the fact, that when aspiration is performed more than once, the effused fluid is exceedingly likely to become purulent, and so give rise to empyema, that I determined not to attempt surgical interference a second time, but to try a remedy which some French clinicians have lately used in cases of pleurisy with very great success, viz., jaborandi. I therefore ordered the patient one drachm of the fluid extract of jaborandi, four times daily. The results have been truly marvelous. For nearly a week, his temperature has been down to  $98^{\circ}$ – $99^{\circ}$ , the chills, pain, and dyspnœa, have altogether left him; his pulse has fallen to 86–96, per minute, and his respiration to 20. As regards the physical signs, I may state that there is no dullness upon percussion, except at the very bottom of the chest, and that the respiratory murmur is clear as far down as a level three inches below the angle of the scapula, that is to say, the murmur is only feeble over the spot of dullness. The effusion has, therefore, almost entirely disappeared. There is not more than one-quarter of an inch difference between the measurements of the two sides.

The patient has been sweating profusely while under the jaborandi treatment, so that I have no doubt at all that a large part of the effusion has been drawn off through the pores of the skin. He has also passed water very freely. The jaborandi has plainly done good by means of its diuretic and diaphoretic action. The result is most gratifying to me. The man is practically cured, and what is better, I think his cure will be permanent. In general, it may be laid down as a common fact, that fluid removed from the chest by medicinal means is far less likely to recur than if removed by surgical interference, that is, by aspiration. Do not understand me as taking a position against aspiration, it is a most valuable therapeutic agent, and I often employ it, but I advise you always to use it as a last resort, where symptoms of dyspnœa and cardiac disturbance are urgent, and to try first in every case to treat the patient medicinally.



LECTURES ON COMPOUND COMMINUTED FRACTURE  
OF RIGHT ELBOW, AND DISLOCATION OF RIGHT  
HUMERUS, WITH POST-MORTEM EXAMINATION.

BY

JARVIS S. WIGHT, M. D.,

Professor of Surgery in the Long Island College Hospital, Brooklyn, N. Y.

GENTLEMEN—I have summoned you here at this hour, 8 P. M., to see an African negro who has been very severely injured. He is the steward of a ship; he is sixty-one years of age; he fell through the hatchway, from the deck into the hold, upon some slates that were laid in with their edges up, a distance of about twelve feet.

FIRST—He has, as you see, a transverse supra-condyloid fracture of the left femur, and I call your attention to the fact that he had sixteen years ago a fracture of the neck of the left femur, followed by considerable shortening.

SECOND—He has some contusion of the head; the pupils are dilated, but there are no indications of serious injury to the brain.

THIRD—There is a compound, comminuted fracture at the right elbow-joint, involving the radius, the ulna, and the humerus. The opening is small, and over the olecranon.

FOURTH—The head of the right humerus is dislocated. The greater tuberosity is under the coracoid process, and the head of the humerus projects beyond into the axilla.

FIFTH—There is great shock. The molecular effect of the fall has disturbed the organic relations of the nervous system, rudely interfering with the circulation. In order to arrest, in some measure, the depression, the patient has had hypodermic injections of whiskey, from one-half to one drachm at a time.

It very rarely happens that the head of the humerus is dislocated on the dorsum of the scapula. This subject need not detain us at present.

*In the great majority of cases the head of the humerus is dislocated into some part of the axilla.* Remember the boundaries of the axilla and you will realize the truth of this statement. The upper end of the dislocated humerus may be (1) under the neck of the scapula; (2) under the coracoid process; or (3) under the clavicle.

FIRST—In the sub-glenoid dislocation the head of the humerus is in front of the latissimus dorsi, which is the posterior boundary of the axilla; it is above the floor of the axilla; and it is, therefore, practically in the axilla.

SECOND—In the sub-coracoid dislocation the head of the humerus is back of the pectoralis major, which is the anterior boundary of the axilla; it is above the floor of the axilla; and it is, therefore, practically in the axilla.

THIRD—In the sub-clavicular dislocation the head of the humerus is under the pectoralis major; it is in front of the scapula; and it is, therefore, in the axilla.



Admit that the walls of the axilla in these three instances may be somewhat displaced, yet practically the head of the humerus does not go out of the axillary space.

And this gives us a very simple principle of classification. The head of the humerus is dislocated into the axilla, (1) under the neck of the scapula; (2) under the coracoid process; and (3) under the clavicle.

Shall we reduce this dislocation while the patient is in a state of continued shock? Yes, if he can take ether; for sometimes ether will mitigate the severity of shock. Let me remind you that it is perilous to give chloroform to an African negro—a lesson taught me by experience. See how readily and kindly our patient goes under the influence of ether. My clinical assistant will now support on his hands this mangled limb in the most careful and tender manner, and leave me the upper part of the arm for manipulation. The nurse brings me a soft pillow of medium size, such as you can get in every house. I place this pillow gently between the arm and chest-wall, and put the bottom of my *stockinged* foot upon it, when I firmly grasp the sound part of the arm and pull outward and downward, at the same time pushing the pillow upward before my foot. The dislocated bone is reduced with great ease.

I now observe that the patient is very much depressed. He is almost in a state of collapse. To excise the elbow-joint now would be full of peril to the patient; perhaps this may be done in the morning. I will put this injured arm in a right-angled trough of wire-cloth, well lined with oakum, applying carbolized oil to protect and quiet the contused and lacerated tissues. I will sustain the patient with wine and milk, and alleviate his pain with anodynes. The patient will be taken to his bed in the ward, and you will be told in the morning how he passed the night.

Before you go, let me explain to you some points in the mechanism of reducing a dislocation of the humerus. The pillow presses:

FIRST—*On the chest-wall*, which is quite immovable; and the scapula is attached to the chest-wall by firm fascia, by strong muscles, and by the clavicle; and the motions of the scapula are modified by these attachments.

SECOND—*On the pectoralis major muscle*: That is, the inferior fibres of this muscle. These fibres are made tense, and they have a tendency to pull the humerus inward and downward; but the pillow prevents the inward tendency. Hence, any motion coming from this cause must be downward.

THIRD—*On the latissimus dorsi muscle*: The fibres of this muscle are made tense by the pressure of the pillow, and they have a tendency to pull the humerus inward and downward; but the pillow prevents the inward tendency. Hence, any motion coming from this cause must be downward.

FOURTH—*On the pectoralis major and the latissimus dorsi*. The pillow presses upward, and may be looked upon as immovable. The

hands of the surgeon pull downward on the arm: this draws upon the tendons of the great pectoral and the broad dorsal muscles. The fibres of these muscles are drawn around the pillow and the surgeon's foot, and the traction extends to the attachment of these muscles to the trunk. Hence, the force is applied so as to pull the trunk and the scapula with it upward. At the same time, the upper limb moves downward, and in the sub-glenoid dislocation, the head of the humerus is carried over the border of the glenoid cavity; in the sub-coracoid dislocation, the head of the humerus is liberated from the coracoid process and carried over the border of the glenoid cavity; and in the sub-clavicular dislocation, the head of the humerus is drawn downward under the coracoid process, and carried over the border of the glenoid cavity: hence the pectoralis major and the latissimus dorsi muscles may be made to assist in the reduction of a dislocation of the humerus. My practical observations are in accord with these statements.

FIFTH—*On the axillary border of the scapula.* Any pressure of the pillow on the axillary border of the scapula tends to move the upper end of the humerus outward toward the glenoid cavity, and the scapula upward.

SIXTH—*On the inner-side of the upper part of the arm;* and it pushes the head of the humerus away from the chest-wall by antagonizing the teres major, the sub-scapularis, and especially the middle fibres of the pectoralis major. Any motion coming from this cause is away from the chest-wall towards the glenoid cavity.

In the mean time, remember that the lower end of the arm is abducted and elevated, by which the deltoid, and any remains of the supra-spinatus, are relaxed, and the untorn part of the capsular ligament is "taken off the stretch."

When the pillow begins to press upon the arm, the arm must be rotated outward. This, as you can readily see, prevents any severe pressure on the axillary vessels and nerves, by turning them out of the way, and it turns the head of the humerus towards the glenoid cavity. *And now traction on the arm, outward and downward by the surgeon's hands, brings into play all the forces above described, and the head of the humerus is induced into the glenoid cavity;* and finally, as the reduction is completed, the entire upper limb is carried across the chest.

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Gentlemen, I have to tell you, to-day, that our patient died about two o'clock this morning. If I had done more for him last evening he would have died on the table. It is our duty, at times, not to operate; you must do the best you can in the circumstances in which you are placed, and Sir Astley Cooper must do the best he can in the circumstances in which he is placed.

I shall omit the didactic lecture this morning, and occupy the hour investigating this injured upper limb. Let me direct your attention



at first to the fracture: I will exsect the elbow-joint. The point of the knife is entered over the ulna, two inches below the olecranon, and now cuts through the soft parts for a distance of four inches directly upward. I feel the blade grating on the fragments of bone. The soft parts are separated by retractors; the fragments of bone are separated from the periosteum, and removed—it being necessary to extend the incision about two inches further towards the hand. Here are seventeen fragments, some are sharp-pointed, and some are rough. They comprise two inches of the lower end of the humerus, and about four inches of the upper ends of the radius and ulna—a loss of six inches of the bones of the upper limb. To lose six inches of the upper limb and save the hand, is better than to lose the hand. And now if this cadaver were a patient it would be advantageous to put what there is left of his upper limb on a posterior double-angled splint, such as you have seen me use for compound fractures of the forearm.

In the second place, let me direct your attention to the right shoulder. You will not often have an opportunity like this to study the pathology of a dislocation. The work before us is to determine what structures about the shoulder-joint have been injured in this case. Let me call your attention to the fact, that there is rigor mortis. This need not detain us now. It may somewhat interfere with our investigations. The knife is inserted over the acromion, and an incision four or five inches long is made through the deltoid in a direction downward, upon the greater tuberosity and the shaft of the humerus. One part of the deltoid is drawn forward, and the other part is drawn backward, and the incision is extended above and below, so as to give room for complete observation. You will observe that the tendon of the *teres minor* muscle is torn from the greater tuberosity of the humerus. The muscular fibres of the *infra-spinatus* are lacerated, and there is some extravasated blood among them. The muscular fibres of the *supra-spinatus* are very much lacerated, and the tendon is mostly torn from the greater tuberosity. Among these structures is extravasated blood. The capsular ligament of the shoulder-joint is intact over the greater tuberosity of the humerus. I now put my finger into the posterior part of the opening we have made, and find the capsular ligament torn from the neck of the humerus, as far forward as the posterior limit of the greater tuberosity. And I now put my finger into the anterior part of the opening we have made, and find the capsular ligament torn from the neck of the humerus nearly as far outward as the greater tuberosity—some fibres being still attached to the lesser tuberosity. The head of the humerus remains firmly in the glenoid cavity.

The circumference of the humerus at the anatomical neck is from five to six inches; the greater tuberosity takes up about two inches, the lesser tuberosity and the bicipital groove take up about one inch, so that from the greater to the lesser tuberosity internally there would be about three inches of the anatomical neck of the humerus. Hence,



in this case more than one-half of the capsular ligament has been torn from the humerus—transversely to the axis of the shaft of the bone; and through this rent the head of the humerus was driven at the time of its dislocation.

I will now cut the intact portion, less than one-half of the capsular ligament, and the head of the humerus is liberated. It readily goes into the axilla; observe how the greater tuberosity gets under the coracoid process, while the head of the humerus projects beyond it. See the long tendon of the biceps comes out of the bicipital groove, being still attached to the scapula. It is dislocated. Now put the head of the humerus back into the glenoid cavity, and the long tendon of the biceps resumes its place in the bicipital groove. How can we interpret these facts? Why, in this case there must have been a dislocation of the long tendon of the biceps, and last evening, when I reduced the dislocated humerus, the dislocated tendon of the biceps must have been reduced also. Does this tendon break away from its scapular attachment, or is it dislocated when the humerus is dislocated? This is a very difficult question to answer. So far as I can now judge, the long tendon of the biceps is more likely to be torn from the bicipital groove than from the scapular attachment. Let me now show you the lacerated fibres of the subscapularis. Note the very considerable extravasation extending from the inner aspect of the humerus into the tissues of the axilla. From this exhibition you can get an idea of the very considerable injury done to the peri-articular structures by a dislocation.

And now let me call your attention to some anatomical points and mechanical questions of importance in regard to the reduction of dislocations of the humerus.

FIRST—The acromion projects beyond the glenoid cavity, on the average about two inches, sometimes beyond the greater tuberosity; sometimes even with it, and sometimes not so far as this process; generally the extremity of the acromion is directly over the greater tuberosity of the humerus.

SECOND—There is but very little space between the upper end of the humerus and the acromion process. The acromion protects the upper end of the humerus, and limits the upward motion of the arm.

THIRD—The anatomical neck of the humerus is very short, and meets the axis of the shaft of the humerus at an angle of about forty degrees. The anatomical neck and the surgical neck very nearly meet on the inner side of the humerus.

Now let us abduct the arm and elevate it. It goes readily, till the axis of the humerus is nearly at a right angle with the axis of the body, when you see it will not go further, *because the greater tuberosity comes in contact with the acromion*. Let us try to move this arm further upward; see the head of the humerus is pushed out of the glenoid cavity. The greater tuberosity is the fulcrum; the distance from it to the elbow is the power-arm of the lever; and the anatomical neck is the weight-arm of the lever. Approximately ten pounds

applied to the lower end of the arm, the greater tuberosity being against the acromion, would overcome one hundred pounds of resistance before the head of the humerus. Hence, immense force can be applied to the capsular ligament, by abducting and elevating the arm.

This nurse has removed the clothing from his right shoulder, in order that I may demonstrate to you the facts. His arm may be elevated about to a right angle with the body, where it is arrested. Hold the scapula immovable and the arm will not go up higher; let go the scapula and the arm will move up somewhat higher, *because the scapula is tilted upward as the elbow moves upward*. So much for these motions when the parts are in a normal condition, but the same principles control the motions of the dislocated humerus, as we shall soon make plain.

In another relation, the facts are different. Do not forget that the humerus will rotate through an arc of about  $90^{\circ}$ . Now, let us elevate the arm, and *supinate* it at the same time. (1) The head of the humerus rotates in the glenoid cavity; (2) The greater tuberosity is turned away from the acromion toward the axilla; (3) the acromion projects against the surgical neck of the humerus on the inner side; (4) the head of the humerus projects under the acromion, being turned, as it were, upside down, in the glenoid cavity; (5) the scapula is tilted upward; and (6) the upper limb is found to be somewhat directly upward.

In the next place, suppose we have any one of the forms of dislocations at the shoulder that we have denominated *axillary*. The head of the dislocated humerus in general, will look nearly in the same direction as it did before displacement, that is, toward the chest-wall. Now abduct and elevate the dislocated humerus. The greater tuberosity and the outer side of the upper end of the shaft will move toward the glenoid cavity; the head of the humerus will continue to look directly away from the glenoid cavity; and the upper motion of the arm will be arrested by the acromion process. *Under such conditions, the head of the humerus will not go into the glenoid cavity.*

Please to remember that the humerus is dislocated, that the arm is abducted and elevated, and that the head of the humerus looks away from the glenoid cavity; the humerus is, as it were, turned inside out. You will now observe that *supination* of the arm will turn the head of the humerus forward, inward, and backward, toward the glenoid cavity; but *supination* will sometimes enable the surgeon to reduce the dislocation, and sometimes it will not enable him to do so. I have succeeded, and I have failed to reduce a dislocation of the humerus by these manipulations. The failure may have been due to: (1) the downward traction of the pectoralis major, and the latissimus dorsi; (2) the entanglement of the head of the humerus by the sub-scapularis; (3) the obstruction offered by the untorn portion of the capsular ligament; but I have not as yet been able to satisfy myself as to the primitive causes of failure under the circumstances.



It must, however, be admitted that the upward traction on the arm, combined with rotation, is a most effective way to break up the adhesions of an ancient dislocation, and it may be as dangerous as it is effective, but even then it will not always reduce the dislocation. And after the adhesions have been broken up I have made the reduction by abducting and elevating the arm, rotating it outward and lifting the upper end of the arm away from the chest-wall out of the axilla, so that we come back to the classical method of reducing a dislocation of the humerus.

Let me allude to another point that has received much attention. I refer to the resistance to reduction made by the untorn portion of the capsular ligament. I am speaking now of the shoulder-joint. There are two facts that you already know, viz.:

FIRST—Complete anæsthesia will relax muscular fibres.

SECOND—Complete anæsthesia will not relax ligamentous fibres.

There are two other facts that have been repeatedly demonstrated by observation, viz.: the same means (1) when unaided by anæsthesia will fail to reduce a dislocation of the humerus; and (2) when aided by anæsthesia will accomplish the reduction of a dislocated humerus.

The anæsthesia has removed the muscular obstruction, and it has not removed the ligamentous obstruction; hence, the obstruction to reduction of a dislocated humerus is sometimes muscular, sometimes ligamentous, and sometimes both muscular and ligamentous. It is important to look at every side of a problem one is called upon to investigate.

Here I may add the following statement, namely, to abduct and elevate the elbow of a dislocated humerus and to lift the upper end of it away from the chest-wall out of the axilla will most effectually relax the untorn portion of the capsular ligament.

Finally, I had proposed to investigate the left hip-joint of this cadaver, but the friends interpose; they say we have done enough, and I must respect their objections and their feelings.

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## A CLINICAL LECTURE ON ANGINA PECTORIS,

Delivered at the Jefferson Medical College Hospital of Philadelphia,

BY

JOHN B. ROBERTS, M. D.,

One of the Physicians to the Hospital.

I shall show you this morning, gentlemen, two cases which are interesting illustrations of a malady that is not very frequent, but is of great importance in a clinical point of view. First, let us hear the history of this man. John L., aged 32, comes to the hospital complaining of sudden paroxysms of severe pain in the cardiac region, which, he says, occur when he is hurried or excited, though sometimes they come on at night, so that he wakes in great pain and distress. The pain extends down both arms, but, he thinks, especially the left,



and during the attack, he suffers from dryness of the mouth, and is afraid to take a deep breath lest it should increase the pain. The feeling of suffocation and the severity of the pain are such, that he feels as if he were going to die. This is the account of the attacks, which have of late rather increased in intensity; and, in addition, we find that he had some rheumatic trouble in his feet about seventeen years ago. Of course, these symptoms tell us to examine the chest, and finding nothing important in the lungs, we investigate the heart. The open beat is seen and felt outside of and below the left nipple, and on auscultation, there is perceived a loud, shrill murmur, diastolic in tune, and heard best in the vicinity of the aortic cartilage; in addition, there is heard a slight murmur with the systole of the heart, which is also most distinct at the right side of the sternum, near the second cartilage. These murmurs are easily understood, if you recollect what should be the position of the aortic valves during the two sounds of the heart. During the first sound, the aortic leaflets should be widely open, and hence, murmur produced at that time indicates roughening, or some obstruction to the free exit of the blood current; with the second sound, however, the valves should be shut to prevent a reflux of the blood; but as we have a loud prolonged murmur at the orifice during diastole, it is evident that there must be free regurgitation. This is further substantiated by the character of the radial pulse, which strikes the finger with considerable force, but suddenly sinks away again, or, as we say, receding. Finally, the increased size of the heart, without a corresponding augmentation of the force of the impulse, renders it probable that dilatation exists as a consequence of the valvular lesions. Having thus determined that this patient has dilated heart, with regurgitation at the aortic orifice, and, perhaps, a slight amount of roughening, let us turn to the woman who comes with somewhat similar symptoms.

She is thirty-eight years of age, and says she has palpitation of the heart, and paroxysmal pain which is severe and shoots down her arms. These attacks are produced by any excitement, and during them, she becomes unconscious. She has never had rheumatism, and though nervous, has never been hysterical, and does not belong to an hysterical family, at least, not in the ordinary acceptance of the word hysterical. Examination of the lungs show signs of some consolidation at the right apex. Over the cardiac area is heard a harsh systolic murmur, with its point of greatest intensity at the apex, though it is also heard at the aorta; but as heard then, it is probably a transmitted sound from the mitral orifice. You must recollect that the four valves of the heart are situated very near together, in fact, in a space small enough to be covered, perhaps, by a half dollar; hence, to distinguish at which valve the murmur is generated, it is necessary to place the stethoscope at other points than over the anatomical seats of the valves. These points have been determined clinically, and are well known to you, viz., apex, ensiform cartilage, second right costal cartilage and second left costal cartilage, or rather

in the interspaces just below these costal cartilages. There is in this heart a strong impulse which is somewhat extended, hence, hypertrophy may be supposed to exist. In other respects, the woman seems to be in good general health.

You have now the history of these cases, and a report on the condition of the heart in each. The characteristic symptoms at once suggest as the diagnosis *angina pectoris*, which is evidently correct in regard to the first patient, but must be accepted with a little more hesitation in the second instance.

Let us then discuss the symptoms, pathology, diagnosis, and treatment of this painful disease; and first let me give you a hint as to the name *angina*, which you hear applied to many diseases so different in character. From its derivation it means something that throttles or suffocates, and was accordingly, by the older writers, applied to many diseases, having *dyspnœa* or difficult respiration for a symptom. Now you understand why it was applied to various kinds of sore throat which are so distant in their relationship to *angina pectoris*. The disease is characterized by sudden lancinating pain, radiating from the præcardial region into the neck and arms, and accompanied by a sense of constriction. There is apparent *dyspnœa*, produced by the intense suffering, which makes the patient afraid to breathe, though if he be commanded to take a deep inspiration, he can do so, and may thus cut short the paroxysm. Such is the case with this man. The pain is apt to shoot down the arms, and is especially noticed in the left arm as a rule; occasionally, however, as in a case under my care a year or two ago, the pain seems to begin in the hands and afterwards proceeds to the cardiac region. The paroxysms of pain may be induced by any exertion or emotion which quickens the circulation, and it is not unusual for patients to have distressing dreams at night and to wake with intense pain, and the feeling of impending death which so generally characterizes the affection. The patient may suffer so exquisitely that syncope may occur, as is stated to be the case in the woman before you. During the paroxysm the pulse may be greatly disturbed, while at other times its rhythm and force are not much interfered with. It has been stated that there is during the occurrence of *angina pectoris* a great difference in the strength of the pulse, felt in the two radial arteries, but this, I think, has hardly been fully established. The intervals between the attacks of pain are irregular, and usually the paroxysms increase in frequency and severity, until the patient at last succumbs to the disease in one of these attacks, or is carried off by some intercurrent affection.

If the heart of such a patient be examined, what do we find? Usually there is organic disease of the heart or aorta, but no one lesion seems to be always present. A good many cases show atheromatous change of the coronary arteries, others fatty degeneration of the muscular structure of the heart, while in other instances again there is valvular disease or aneurism of the aorta. It would seem that most instances occur when there is fatty degeneration of the cardiac walls,



or lesions at the aorta, such as regurgitation, liable to induce overdistension of the ventricles. The pain which is probably neuralgic in character, and connected with the cardiac plexus, whence it is reflected by pneumogastric and sympathetic branches, is experienced whenever emotion or excitement causes sufficient disturbance of the circulation to produce overdistension and consequent paralysis or spasm of the heart. Fortunately I am able to show you a specimen to-day, taken from a patient of Dr. Ingram, which presents not only a rare lesion of the heart, but is interesting as being derived from a man who died a few days ago in a paroxysm of angina. The doctor had seen the man some weeks previously in a typical attack, and there is hence no doubt as to the diagnosis of angina pectoris. He was sent for hurriedly, about two weeks ago, and found the patient dead. The heart is before you, but has not as yet been thoroughly examined with the microscope. It is somewhat dilated, and shows a number of growths situated in the wall of the right ventricle, one of which involves the tricuspid valve. The coronary arteries are patulous, and the valves, except the tricuspid, normal. Further examination will probably show fatty change in the muscular fibre of this organ, and it is probable that these growths are malignant. You see then that there is no constant lesion in angina pectoris, though there is generally perhaps some fatty transformation, alone or connected with other lesions. You have heard then something of the symptoms and pathology of angina, and have seen this most interesting specimen; it remains to discuss the differential diagnosis and the treatment.

Intercostal neuralgia, with palpitation of the heart, may be discriminated, as a rule, by the three spots of tenderness found in the course of the intercostal nerve, as well as by the less serious character of the pain. There is a rare affection, sometimes called cardiac epilepsy, similar to angina pectoris, but in such cases, there is unconsciousness, generally primarily, while in angina the unconsciousness, if it occurs at all, comes secondarily as a result of the exquisite pain. Hysterical women sometimes have symptoms allied to angina in connection with ordinary neuralgia of the chest walls, and may complain of intense pain, and even lose consciousness. Hence we must be careful in making the diagnosis, and learn all we can of the antecedent history of the patient. Indeed, in the woman just before you, I have not made up my mind yet as to the true nature of the case, and have therefore made in her case a provisional diagnosis, while in the man, who has been under observation longer, and presents symptoms of aortic regurgitation and dilatation, there is no doubt regarding the anginose character of his disease.

The treatment must vary according to whether you are called to the patient during the paroxysm or in the interval. When you find him suffering this intense pain, and afraid to breathe, order him to make an effort to respire, and assure him that it may relieve the pain, or at any rate will have little tendency to increase it. If the case be one of moderate severity, hot whiskey punch, or some aromatic, may



relieve; or spirit of chloroform, or ether, may be administered. The best remedy, however, of all, is a full dose of morphia, say a half or three-quarters of a grain, hypodermically. Resort may be had to inhalations of chloroform or nitrite of amyl, which will probably be of service; but our great reliance in painful spasmodic affections is morphia, given subcutaneously. During the interim between the paroxysms, attend to the general health, tell the patient to avoid excitement; dyspepsia and all causes liable to induce a paroxysm; and relieve, if possible, the cardiac disease, or at least endeavor to prevent overdistention or overwork of the disabled organ. Arsenic, belladonna, and digitalis, may at times be found available, and will apparently prolong the interval. Bromide of ammonium has been recommended, and cases have been reported where it seemed to cure the predisposition to attacks of angina. This man has been taking bromide of sodium with a similar end in view, and as he has no doubt tried many other remedies; it shall be continued in order to give it a fair trial. The woman's case shall be investigated further to see if the affection be true angina pectoris or an hysterical disorder, and she can then be treated accordingly.

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## SPONTANEOUS AMPUTATION OF A GANGRENOUS LEG AT THE KNEE-JOINT, UNDER THE HOT WATER TREATMENT.\*

SERVICE OF  
DR. FRANK H. HAMILTON,  
Bellevue Hospital.

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December 18, 1877, John Meagher, aged about 25 years, a switchman on the Long Island Railroad, was run over by two platform cars. During three days, he remained under the care of a physician at Hunter's Point, refusing to submit to amputation.

December 21, he was admitted to my wards, Bellevue Hospital. My House-Surgeon, Dr. W. S. Halsted, who examined him at once, and who was throughout in immediate charge of him, reported to me that he was, on admission, pale, and a little bronzed—his breath had a slight saccharine odor, the surface of his body was cold, his pulse weak, thready and rapid. He was delirious, talking in a low voice and incoherently.

The right thigh had suffered a severe laceration just above the knee; the wound being about ten inches long, and closed by sutures. It was emitting a strong gangrenous odor. On removing the sutures, the underlying structures were found extensively contused, the bone bare, and the wound filled with masses of undetached gangrenous tissue.

His left thigh was broken about three inches above the knee-joint, the upper fragment penetrating the joint. The whole limb was cold, swollen, discolored, emphysematous and pulseless.

\*Reported to the Surgical Section of the Academy of Medicine, Feb. 12, 1878.

His condition did not warrant an amputation. In this opinion, Dr. Wood and the House Staff concurred. A long splint was laid beside the broken limb and secured by bandages, heat applied to the extremities, a weak solution of carbolic acid was employed to correct the fetor, and nourishment with stimulants were administered. Speedy death was anticipated.

On the following day, his mind was more clear, but he was still very feeble, and the gangrene was extending in both limbs. Amputation was advised, but the parents refused their consent.

December 23.—Gangrene still extending; in the left leg involving the whole limb as high as the knee, and a discoloration existing as high as the groin.

The entire left leg and thigh were now enveloped in cotton batting, saturated with hot water—water at about the temperature of one hundred and ten degrees of Fahrenheit—and the laceration on the right thigh was treated in the same manner. Outside of the cotton batting, each limb was enclosed in oiled silk, and the patient was made to repose on a sheet of oil-cloth.

From this time, December 23, to when the left leg was removed at the knee-joint, the hot water was renewed every twenty or thirty minutes, day and night.

December 25, the discoloration, suspected to indicate approaching gangrene, has nearly disappeared from the left thigh, above the fracture. A line of demarcation is forming at the knee-joint. Delirium abating. He begins to take food. Rests well.

December 29, no delirium. Says he feels well.

January 6, 1878, nineteen days after the receipt of the injury, and thirteen days after the commencement of the hot water treatment, the separation at the left knee joint was so nearly completed that with my scissors I cut the remaining sloughy bands, and removed the leg, without inflicting pain or causing the loss of only a few drops of blood.

The gangrenous slough had already separated from the opposite thigh.

January 7, removed to a water bed, being threatened with a bed sore.

January 15, right knee painful and swollen, but on the following day a profuse discharge occurred from the wound above the knee—probably from the joint—and the patient was relieved.

January 22 to 31, three or four small abscesses appeared on right limb and were opened.

February 8, last report, patient gaining in strength; wounds healing on right limb. Lower fragment of femur, (left limb,) projecting, and the necrosed extremity of bone gradually separating from the shaft. The lower fragment, about four inches, including the joint surface, dead, but still hanging by two bands of living soft tissue. Granulations healthy and cicatrization progressing; water dressings discontinued when the leg separated; balsam of Peru being substituted. His final and complete recovery is now assured. Possibly after a time resection of the bone may be required to make a good stump, but probably not. The lower fragment might be removed at any time



with the loss of a little blood, but it has been deemed advisable to wait until the patient's strength is better established.

This is not the first time that I have obtained a similar result from this plan of treatment, and while I am not prepared to say that it will always prove successful in arresting traumatic gangrene, and in securing a prompt separation of the dead parts, it is proper to say that the method always deserves a trial when amputation cannot safely be practised.

It is worthy of remark that from the second or third day after the commencement of the hot water applications, there was almost no apparent constitutional disturbance. The patient took no medicines.

A very excellent paper on this subject of Hot Water in Surgery has been written by Dr. Frederick E. Hyde, of this city, formerly my pupil, and published in the *Buffalo Medical Journal* for December, 1875. It may be found in a pamphlet form at the publishing house of Wm. Wood & Co. In this paper, cases 6, 9, 10, 11 and 12 are examples of gangrene which were under my treatment, and which were arrested by hot water, and resulted in spontaneous amputation, and a cure.

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## NOTES ON THE LOCAL TREATMENT OF BLENNORRHOEA.

BY  
J. E. M. LORDLY, M. D., New York.

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Having kept a careful record of the last forty-two cases of blennorrhœa that have come under my observation, I beg leave to offer the results as obtained from local treatment, believing that blennorrhœa, acute or chronic, can be more successfully treated by this means alone than by internal remedies, combined with the small injections usually prescribed. It is, however, important that the injections and insufflations, which I advocate, should be made by the physician himself, and no patient should be allowed to have a syringe and use injections indiscriminately.

The plan of treatment adopted was as follows: A good fitting suspensory bandage was first applied, the bowels were kept regular by a saline cathartic; stimulating food and liquors were to be avoided. A copious warm medicated injection of about three pints was used every day, sometimes twice a day, and always after urinating. A large flask, containing the fluid to be injected, was suspended above the patient's head, and a No. 2 catheter, warmed and well lubricated with vaseline, was connected to the flask by several feet of small rubber tubing, the catheter was gently passed down to the prostatic portion of the urethra, and the fluid allowed to run slowly out. After the tenderness had somewhat subsided, or when the discharge had lasted some time, a greater pressure was used, by placing the flask at a higher level, and so distending the urethral canal and allowing the fluid to come in contact with the whole surface.

I have used, with equally good results, solution of chlorate of pot-



ash and sulpho-carbolate of zinc, in the proportion of one to three grains to the ounce, and when the tenderness was very great, an anodyne, such as extract of opium or belladonna, was used in the injection. Even in those acute cases the careful introduction of the catheter with a warm anodyne injection gave great relief.

After the injection, I applied astringent powders to the urethra, by insufflation. A small glass tube, about nine inches long and of sufficient strength, was passed gently down the whole length of the urethra. This tube is connected by a short piece of rubber tubing to a wide mouth bottle through the stopper; then air is forced into the bottle, by a hand bulb, through another short tube, which also passes through the stopper, the strong current of air passing into the bottle and out through the long glass tube, carries with it a portion of the powder which the bottle contains, and is deposited in the urethral canal, as the tube is slowly withdrawn.

The astringent powders are composed of tannin and sugar of milk, charcoal or starch, in different proportions, to suit the case. In chronic cases, equal parts are used with good results. The duration of the disease, previous to the time of treatment, varied very much; for instance, twenty-six patients had had a discharge for a time varying from two days to two weeks, while fourteen varied from two to six weeks, and two patients of intemperate habits had had a discharge of two months; nineteen patients had gonorrhoea for the first time, eight for the second time, and fifteen had had it several times.

Three patients had suppurating buboes, when they applied for treatment; nine had chaneroids; four had indurated chancres, which were followed by secondary syphilis. Thirteen patients had one or more strictures in the urethra.

Local treatment gave the following results:

Four cases cured in one week.	} Diseased for the first time, and from two to seven days before treatment was commenced.
Three cases cured in ten days.	
Seven cases cured in two weeks.	

Eight cases cured in three weeks.

Seven cases cured in four weeks.

Seven cases cured in six weeks.

Six cases cured in eight weeks.	} Complicated with strictures.

One patient, a fireman, neglected wearing his suspensory bandage, and had a swelled testicle, which was soon relieved by antiphlogistic treatment. All the patients followed their usual avocations, and were obliged to be on their feet during the entire time of treatment. If rest in the recumbent posture could have been employed, the cure would doubtless have occupied less time.

My limited experience in the treatment of gonorrhoea leads me to believe that it can be most successfully treated by the observance of the following points.

FIRST—The *personal supervision* of the treatment by the physician.

SECOND—The use of *copious*, warm, medicated injections, not to be stronger than three grains to the ounce.

**THIRD**—The application of a suitable astringent powder, that will remain in the urethral canal for a sufficient length of time to cause a healthy action to be taken on by the mucous membrane.

The above treatment necessarily implies time and patience on the part of the physician, but I think the result will be gratifying to both himself and patients.

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## THE USE OF CHLORAL, SURGICALLY,\*

BY

MAURICE J. LEWI, M. D.,

Resident Physician and Surgeon at the Albany Hospital.

And now, gentlemen, we go half-way with Mr. Lucas, and say : "What we can prove substantiates just about one-half of what you assert." Let it not be thought, however, by any of you that I am opposed to the use of this remedial, but to the contrary, I consider it one of the best local applications to ulcers, of the pharmacopœia, used with certain precautions and under certain rules, to which I shall now endeavor to call your attention.

**FIRST**—Have your solution 5 grs. to the ounce, ointment likewise.

Experience has proven that if this proportion be not efficacious, chloral is of no benefit in any larger or smaller proportion ; that is, if the ulcer do not respond to a 5-grain solution of chloral, it is certainly chloral-proof as far as healing is concerned, and injurious as to the system generally in larger quantities. In the proportion above mentioned, there are no ill-effects noticeable, and the uncomfortable itching, spoken of by so many writers on this subject, has, in the cases cited, been present but in one, and then to last but a short time.

**SECOND**—Apply by means of sheet or picked lint.

The soft, yielding character of the fabric allows granulations to sprout up under it, and in place of acting as a foreign body, actually takes the place of a scab, protecting the wound from the air, retaining perfectly the ointment or solution, as the case may be, and bringing the application directly in contact with the surface. In fistula, where healing from the base is desirable, it makes an excellent packing, keeping the lips of the wound from contact, at the same time allowing granulations to sprout up on all sides.

**THIRD**—Change dressing daily.

We have observed, in the use of chloral, that unless the dressings are changed daily, there is a great amount of unpleasant labor connected with scraping the ointment from the ulcer, which, if it remains on for a longer period than twenty-four hours, acts as a foreign body, and does harm instead of good; while with the solution applied by means of lint, this dries very soon, and the hardened lint also interferes with the favorable progress of the wound. Changing the dressings oftener than suggested can also be of little advantage, as the

\* Read, before the Albany Academy of Medicine, January 7th, 1887.

chloral undoubtedly retains its stimulating powers for that length of time.

FOURTH—Continue the treatment for only one week.

This last seems to us the most important point to be observed in the use of this drug in the treatment of wounds. The ulcer that has been awakened from its lethargy by the stimulating chloral, loses its power of responding out of habituation, and after a short time—never, however, less than a week—a stasis ensues, its sensibility to chloral becomes blunted, and instead of responding as at first in the form of healthy and encouraging granulations, the wound assumes an unhealthy appearance, the ulcer becomes indolent, and the good offices of the first week of its use are slowly but surely lost in the continued use of a now inert and possibly harmful drug.

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## HOSPITAL RECORDS.

### ROOSEVELT HOSPITAL, NEW YORK.

Reported by W. B. BERRY, M. D., House Surgeon.

LIGATION OF FEMORAL ARTERY FOR POPLITEAL ANEURISM. LISTER'S ANTISEPTIC METHOD. SERVICE OF DR. MARKOE.

Robert Haskell, U. S., aet. 28, single, clerk. About one month ago patient noticed a certain pain and stiffness in the left knee joint, situated along the hamstrings. This pain was increased by exertion. Soon he noticed a swelling at the part hard and pulsating. It was about the size of an egg. His occupation has not called for any great muscular exertion, and he cannot remember having at any time strained the part. One week ago, while jumping from a car, he had sudden and severe pain in the joint, followed by rapid swelling. The limb below soon became cedematous. He went home, kept quiet, and the swelling did not increase. On admission, patient has a soft pulsating tumor in the left popliteal space. It does not seem to be clearly defined. Pressure on femoral artery does not seem to make any difference in size of tumor on pressure.

There is some cedema of the leg and foot. Pulsation in anterior and posterior tibial arteries not interfered with. Patient cannot move the knee without great pain; circumference of tumor seventeen inches.

*Treatment.*—Joint kept perfectly quiet by a bed of plaster of Paris and patient put on low diet: viz., two ounces of bread and two ounces of milk, three times a day, with two ounces rare beef at noon.

*September 17.*—Patient has no pain. The tumor remains about the original size, and it seems to be somewhat more hard.

*September 18.*—Given veratrum viride three drops, t. i. d.

*September 20.*—Weight of eight pounds of shot was placed so as to press on the artery, just above Poupart's ligament.



*September 26.*—The pulsation is reduced in force but is not entirely stopped by the pressure.

*September 29.*—By changing the adjustment of shot bag, pulsation is entirely stopped, but the patient is unable to bear continuous pressure. There is some œdema of foot and leg. Low diet discontinued.

*October 3.*—Weight increased to ten pounds. There is still pulsation when the bag is removed, but it is decidedly diminished. Circumference of tumor seventeen and five-eighth inches, showing an increase of five-eighth inches.

*October 5.*—Unable to bear pressure of bag but very little of the time. Pain intense. Pressure discontinued at night.

*October 8.*—Attacks of acute pain; much œdema in foot and leg. Size of tumor increasing; now measures little over eighteen inches.

*October 9.*—Size, eighteen and one-half inches.

*October 10, 3 P. M.*—Patient under ether.

Ligation of femoral artery performed by Dr. Markoe, assisted by Dr. Mason. An incision two inches in length was made over the position of sartorius muscle, at about apex of Scarpa's triangle. The skin, superficial, and deep fascia being cut through, the sartorius muscle, covered by its sheath, came into view. The sheath was divided, and what appeared to be the femoral artery appeared to the inner side of the muscle. This proved to be the femoral vein, the artery being felt pulsating more externally and more deeply. The femoral artery was then fully exposed for a short distance, by pushing aside the tissues, with the elevator on end of scalpel, and the aneurismal needle was then passed from within outward without difficulty. The artery was tied with carbolized cat-gut, and the ends cut short in the wound. Hemorrhage was but slight and readily checked. Edges of wound were brought together with carbolized gut, and Lister's dressing applied over all. Operation was done under spray; at end of the operation all pulsation had ceased in aneurismal sac, which felt soft and fluid. Patient removed to ward.

*6 P. M.*—Patient out of ether; complaining of very severe pain. Given hypodermic Majendie, ten minims.

*October 11.*—Pulse, 120; temperature,  $99\frac{1}{2}$ . Wound redressed; discharge slight. No sign of irritation about wound. Lister renewed.

*October 12.*—Lister renewed; wound looking very quiet; circulation in limbs seems good. Aneurismal sac feels firm, but there is as yet no returning pulsation.

*October 14.*—Two remaining sutures removed. There is complete primary union. Pulse and temperature nearly normal. No recurrent pulsation in the tumor.

*October 19.*—Lister's dressing removed. There is complete primary union. Sheet lint and simple cerate used. There is very much less œdema of foot. Tumor seems firmer and of less size; *seventeen and one-fourth inches*.

*October 26.*—Patient sat up for short time. Cicatrix of incision very small and sound, but little œdema of leg remaining.

*November 3.*—Passive motion at knee joint made.

*November 12.*—Size of tumor *sixteen and seven-eighths* inches. Motion at knee increasing.

*November 25.*—Tumor measures seventeen and three-eighths inches.

*December 6.*—Tumor measures seventeen and two-eighths inches. Freer movement at knee joint.

*December 10.*—Slight œdema of foot and leg still continue. Size of tumor sixteen and six-eighths inches; no pulsation, and motion at knee increasing.

*December 12.*—Discharged cured.

CONTUSION OF BACK AND CHEST.—PERITONITIS, DEATH.—SERVICE OF DR. SANDS.

Cornelius Cummings, United States, æt. 21; single; laborer. Patient was struck in back in the lower dorsal region, by barrel of cider, which fell down cellar stairway. The barrel also rolled upon him. On admission there is a mere contusion of back in lower dorsal region, with pain and sensitiveness in left hypochondriac region. Some shock. *Treatment*—Rest maintained with morphia to relieve pain.

*November 24.*—Complains of much pain in abdomen which is sensitive and somewhat tympanitic. Vomits green matter. Thoracic respiration, but is very restless. Pulse 108, temperature, 100°. Given sol. morph. sulph., U. S. P., one drachm every four hours.

*November 25.*—Still complains of pain in abdomen. Vomits but seldom. Bowels constipated since admission, with no movement.

*November 26.*—Appears better. Abdomen only sensitive in left hypochondriac region. Morphia is continued.

*November 28.*—Vomiting still continues, throwing off nearly everything. Complains of much pain and lies curled up most of time. Some peristaltic motion of bowels. Much flatus. Dullness over left hypochondriac region, which continues sensitive. Lower dorsal region of back at point of contusion still sensitive.

5 p. m.—Pulse 84. Temperature 100°. Respir. 22.

Morphia sufficient to keep quiet; ordered not to move the bowels or give injection. Given ice to relieve vomiting.

*November 29.*—Suffers much pain at night. Tympanitis continues, but vomiting has stopped. There is an increased area of dullness on left side; extending downward into left lumbar and umbilical regions. Fluctuation detected over this area of dullness, and hypodermic needle drew off a serous fluid, red in color and containing red blood corpuscles. No pus detected. Palpation detects fluid in abdomen. Morphia continued, with diet of eggs and spts. frumenti.

9 a. m.—Pulse 100. Temperature 99°. Respir. 16.

5 p. m.—Pulse 100. Temperature 100 2-5°. Respir. 20.

*November 30.*—Patient continues about same. Appears to suffer

much colicky pain, but has not a depressed appearance. Pulse strong. Tongue moist. Vomiting has returned again, consisting of mucus and often what he eats. The area of dullness in abdomen gives an indistinct tumor.

Hypodermic of Magend., sol. morphia, eight minims, t. i. d., with one drachm doses of U. S., sufficient to keep down the respirations.

*December 1.*—Dullness in abdomen found to be descending, and now on a line with the umbilicus, and one and one-half inches to the left of it. It extends well up towards the ribs and into left lumbar region. By straining, patient had a small passage from the bowels to-day. Tympanitis continues. Vomiting better.

*Urine.*—Alk. 1026. Trace of albumen, uric acid, amorphous urates and traces of pus. Occasional trouble in passing his water, and silver catheter used.

*8 p.m.*—Pulse 136. Temperature 99 1-5°. Resp. 32. Vomiting has returned with much pain. Feels weak; pulse rapid and feeble. Morphia injections continued.

*December 2.*—Patient changed for the worse during the night. Appears in a state of collapse with profuse sweat and cold extremities. Pulse at wrist almost imperceptible. Given hypodermics, whiskey. Rectum cleaned out, and injections of beef tea extracts, one-half ounce to two ounces water, given; also milk and spts. frumenti, each one ounce. Vomits much of time. Tympanitis becoming excessive, but no œdema of lung detected.

*6 p.m.*—Pulse 108. Temperature 97 1-5°. Respir. 50.

Is evidently sinking rapidly.

*8 p.m.*—Patient died.

*Autopsy.*—Abdomen found to contain large quantity of bad smelling brownish black fluid; not purulent. Complete general peritonitis; the abdominal organs everywhere matted together by strong adhesions of fibrine and also everywhere united to the abdominal walls. The small intestine intensely congested and brownish black. The ascending and transverse colon gangrenous, with a rupture, (probably recent) two inches long, in the transverse colon just below stomach.

Slight effusion of blood in chest in cellular tissue over the heart in ant. mediastinum, also found post-pancreatic hæmatocele of large size, ruptured into peritoneal cavity.

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#### ABOUT BOOKS.

*A Practical Treatise on Materia Medica and Therapeutics.* By Roberts Bartholow, M. A., M. D. New and Enlarged Edition. New York. D. Appleton & Co., 1878.

The appearance of a new and enlarged edition of this valuable work, in such a short time after the first, is the best and most convincing evidence of the favor with which it has been received by the



medical public. We learn that no less than three editions were printed from the original plates, and all of these being entirely disposed of. Dr. Bartholow thought that a new edition, enlarged by the addition of facts and observations he has since been able to collect, would be acceptable to the profession.

The author has added new matter in various parts of the work, and in all portions has carefully revised it. New articles have been inserted on beverages, vegetable acids, picrotoxine, caffeine, grindelia, heat, cadmium, cannabis Indica, guarana, phytolacca, digestion-ferments, cereum, cuca, pulsatilla, and ailantus.

The scope, character, and excellencies of the work, were so thoroughly canvassed in the reviews of the first edition, and the work itself is now so well known wherever science is cultivated, that perhaps anything that we might now say would seem stale and unprofitable. We can, however, add our testimony to that of others who have so highly commended the work. Indeed it is the very best one that could be put into the hands of the medical student whose time is necessarily somewhat limited. Prof. H. C. Wood's work, so admirable in most respects, has the great disadvantage that it is not suitable for a college text-book. We think no one will deny this fact who has carefully read it or tried to study it. The average student after reading an article will get up from his perusal with very confused, vague and unsettled ideas as to the action of the remedy he has been studying. The mass of facts presented is too much to be digested in the time that can be devoted to it. As a work of reference, however, it is superior to Bartholow's. The latter work, though, perhaps, it is somewhat more dogmatic, is concise, clear, and full enough for the student and general practitioner for whom it was intended. The mind is not confused by such a variety of conflicting statements and experiments.

The therapeutical part of the work is no doubt superior to that of any other that has appeared during the last few years, and the author is careful to show in every instance, where it can be shown, how the therapeutical depends upon the physiological action of the remedy. Besides this, the author's long and well digested experience has enabled him to show, in very many instances, the best method of exhibiting the agent, and the number of excellent formulæ that he has given, is one of the most valuable features of the book. In fact, almost every page contains some excellent prescription which the author has found useful in his own experience. A proper knowledge of the details of prescribing is a most essential point in successful practice, and Prof. Bartholow has not neglected this part of his subject.

We can give the work no higher praise than by saying that in our estimation, taking it all in all, it is the best work in the English language for general use by the student and practitioner.

The work is published by D. Appleton, and this is sufficient to say that it is everything that could be desired, as far as publishing is concerned.

# THE HOSPITAL GAZETTE

AND

ARCHIVES OF CLINICAL SURGERY.

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## LECTURES.

### LOCALIZED BASAL MENINGITIS IN CHILDREN,

BY

E. C. SEGUIN, M. D.

GENTLEMEN.—I desire this afternoon to call your attention to a class of cases in which the use of the ophthalmoscope is strikingly advantageous, and this in the hands of those not *expert* in the handling of the instrument.

CASE I.—This little girl, aged six years, was brought to my class at the Manhattan Hospital, a couple of weeks ago, with the following simple history. For two or three weeks, she had complained of headache, had vomited frequently, and on February 9, (a week ago,) internal strabismus appeared. The patient has not complained of impairment of vision, she has not had fever, spasm, or delirium. Constipation has, however, been marked. She is anæmic looking; a small brother of her's probably has phthisis, and one child of the same parents is said to have died of "brain fever." My assistant at the

A Clinical Lecture delivered at the College of Physicians and Surgeons, New York, Saturday, February 23, 1878.



Manhattan Hospital, Dr. Adam, immediately examined the child's eyes with the ophthalmoscope, and found double neuro-retinitis: a diagnosis which I concurred in, and which was verified by Dr. Webster in the Ophthalmic Department of the Hospital. Consequently, the most important symptom was the one revealed to us by the use of the ophthalmoscope. I made the diagnosis of basal meningitis localized about the chiasm of the optic nerves, probably without tubercular deposit. The child was blistered behind the ears, and given ten grains of potassium iodide, three times a day, with instruction to increase the dose by five grains per dose, every second day.

As you see the child now, she does not seem sick, and were it not for the convergent squint, you would probably consider her as only a delicate anæmic child. In the last few days, the headache and vomiting have ceased, and improvement has begun.

I shall now relate two analogous cases from my private practice.

CASE II.—Referred for examination to Prof. H. Knapp, on May 2, 1877, a girl, aged four years, previously healthy. First symptoms noticed about five weeks before examination, consisting chiefly in dullness, irritability, slight headache, and, on one occasion only, vomiting. Two weeks later internal strabismus (one eye) suddenly set in, and has persisted. No fever, spasm, or delirium. Previous to this attack there had been no emaciation, or cough, or ill-health of any kind. Dr. Knapp found double neuro-retinitis, with paresis of external rectus of one eye. On examination, I found the child with the above optic symptoms, and very cross; the buccal temperature was 99° F., and the pulse 96, perfectly regular. I made the diagnosis of non-tubercular localized basal meningitis, and expressed the opinion that the child's life was in no danger, though vision might remain considerably impaired. Dr. Knapp was giving potassium iodide, which I also advised. A few days ago Dr. Knapp informed me that a few weeks after I saw the child the strabismus disappeared, and that the neuro-retinitis gradually gave place to atrophy of the optic nerves, which, fortunately, was but slight, so that vision is now nearly perfect.

CASE III.—Sent me for examination by Prof. C. R. Agnew no February 14, 1878. I learned that the patient, a little girl five years old, had gone through an attack of chicken pox, early in January, without fever or apparent ill-health. About January 19th, the left eye "turned in," and strabismus has been constantly present since. No other symptoms have been observed—no fever, headache, irritability, etc. The mother states that one of her former children, at the age of eleven months, had convulsions and fever, became unconscious, and died in two weeks.

Examination of the eyes by Dr. Agnew reveals "double optic neuritis, with some stuffing of the discs; hypermetropia one-seventh of each disc."

I made the same diagnosis as in the second (first in point of time



case, viz.: local basal meningitis, of non-tubercular nature. Advised blisters behind the ears, and large doses of potassium iodide.

These three cases illustrate a form of disease which is not, to my knowledge, treated of in the text-books, yet one which I suspect is not very rare, and which the more general use of the ophthalmoscope would render yet more common. Without a view of the fundus of the eyes in these little patients their trouble would have seemed strange or trivial. For, consider how few symptoms they presented.

*Headache* was present in two of them, and was frequent or severe only in one.

*Vomiting* occurred frequently in one child; only once in *Case II*, and not at all in *Case III*.

*Irritability* and change in disposition, (a real symptom in children under many circumstances,) occurred in only one child.

*Strabismus* occurred in all, and was, in reality, the only symptom which alarmed the parents, and caused them to seek advice. In *Case II*, Dr. Knapp expressly states that he found paresis of one external rectus; but in *Case I* the muscles seem fairly strong, and it has occurred to me that, perhaps in these cases, the squint is due to a stronger accommodative effort which the child unconsciously makes to obtain better vision, as in the squint which accompanies hypermetropia. In *Case III* there was hypermetropia of one-seventh.

*Neuro-retinitis* was present in all the cases. Such important symptoms of intra-cranial disease as *convulsions*, *delirium*, *paralysis*, *fever*, *irregularity of the pupils*, and of the *pulse-rate*, were absent in all the cases. In none of the cases was the basal disease secondary to any serious general fever or constitutional state.

The condition of the optic nerves and retina found in these cases is known as neuro-retinitis, or choked discs. In this state, the optic nerves appear swollen, and may project considerably (measurably) above the level of the surrounding retina; the margin of the disc is obscured or wholly lost, and no line of demarcation can be made out between the nerve and the retina. The blood-vessels present striking anomalies, the arteries being relatively small, the veins positively large and tortuous; there are often small hæmorrhages in the retina, round about the disc. This condition of choked disc may last a number weeks, (much longer in cases of tumor of the brain,) and then subside, giving place to the appearances of atrophy of the optic nerves, viz.: an unnatural whiteness, or bluish-whiteness of the disc, smallness of the retinal vessels, and unusual sharpness of the outline of the disc. A degree of atrophy must be looked upon as inevitable in the stage of recovery in cases such as those related above; hence we must be cautious in prognosis *as regards vision*.

I would next invite your attention to the probable seat of lesion in these cases, and the mechanism by which choked disc is set up. At the base of the brain, anterior to the pons Varolii, and between the two temporal lobes, is a vast reservoir of subarachnoid fluid, contained in the meshes of the pia-mater, in the so-called anterior sub-

arachnoid space. Within this space lie the chiasm of the optic nerves, the roots of the olfactory nerves, and the trunks of the third, fourth, and sixth nerves, on their way to the orbit. Each of these nerves, but more especially the optic, has a lymphatic circulation of its own, within its sheath, and in communication with the sub-arachnoid space. In reality, the same fluid which fills up the anterior sub-arachnoid space circulates in the lymphatic spaces of the optic nerves as far as the eyeball. When inflammation occurs at the base of the brain, or when a tumor is placed there, there is, of necessity, produced a retardation in the two circulations of the optic nerves—their blood circulation and their lymph circulation—and in consequence blood and lymph accumulate in the head (or retinal end) of the nerves, the arteries are small, the veins enlarged, and some of these may burst. Thus may all the optic phenomena of basal meningitis be explained. But, besides, more active processes, exudation, and migration of leucocytes may take place in the delicate optic structures, and result in serious mischief. The effects upon the motor nerves are readily explicable by the same mechanical causation; but it is a little difficult to understand why the sixth nerve, which is certainly more robust than the fourth, should alone suffer. That is, upon the supposition that paralysis is actually present, and that we have not to deal with an accommodative squint.

We ought, with such a lesion so placed, to have some impairment in the function of smell. This is an interesting point which has not yet been investigated, I believe.

I have spoken of meningitis and tumor as giving rise to choked discs, and it may be well for me to say why I do not believe that tumors are present in these cases. *First*—Tumors of the basis are rare in children: they generally have intra-cerebral or cerebellar tumors of the tubercular kind. *Second*—A basal tumor will give rise to more positive paralytic symptoms than are present in our cases: either decided palsy of one or more cranial nerves, or weakness of the limbs on one side. *Third*—Convulsions would form a prominent feature in the symptom-group.

While regarding the lesion as an inflammation of the pia mater, I do not believe that it is tubercular, because of the absence of aggressiveness on the part of the disease, the absence of previous sickness, or of focus whence tuberculization might be set up; and, lastly, because in one case recovery easily and rapidly occurred.

As to treatment, I would advise iodide of potassium in doses varying from ten to sixty grains three times a day, well diluted. These little ones bear the iodide wonderfully well, when it is gradually increased. Counter-irritation has some effect at first, and I would place the blisters behind the ears or on the temples—quite a series. At the same time I would give the child light but nutritious diet, keep it quiet, and avoid everything which produces determination of blood to the head, as active play, anger, surprises, etc. There is no need, I think, of confining the patient to the house.



Finally, gentlemen, I am pleased to speak to you of these cases, in order to give you faith in the value of the ophthalmoscope in the hands of the non-expert. I do not ask you to believe in the diagnosis, by any but our best oculists, of delicate lesions, such as slight anæmia or hyperæmia of the fundus of the eye, or faint atrophy of the optic nerves; but you, and all practitioners, should be able to recognize a fairly normal optic disc and retina, and to distinguish such gross lesions as choked discs, hæmorrhage of the retina, and marked atrophy of the optic nerves. I trust that before you enter upon the practice of your profession, after finishing the elementary curriculum of the winter, you will seek private instruction in the use of the ophthalmoscope, and thus arm yourself with a weapon which will enable you to do more good, to improve your reputation by correct diagnoses, and, what is often more advantageous, to avoid damaging that reputation by an unfounded favorable prognosis in cases such as these, in which all signs, except the hidden ones, are not serious.

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## CLINICAL LECTURE ON THE FORMS OF DYSPEPSIA AND THEIR TREATMENT.

Delivered by WILLIAM PEPPER, A. M., M. D.,

At the University Hospital, Philadelphia.

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CASE I.—P. Mc., forty-seven years of age, a laborer, had malarial fever some twenty years ago, with derangement of intellect. Has lately been in the habit of tending brick-kilns for thirty-six hours at a time. Swells up after eating, feels drowsy and heavy, and belches wind. These spells come on at any time. His tongue is large and flabby, and its papillæ are enlarged. The man has not indulged in any intoxicating drinks for the last ten years, but still smokes a great deal, and drinks three large bowls of coffee daily. You will meet with a great many cases of this kind in your practice. There are very evidently two elements which we have to deal with here—(1) torpor of digestion; and (2) very marked sympathetic nervous disturbances. The dyspepsia may result either from the fact that the food merely goes through the stages of digestion slowly, and so ferments and evolves gas, or it may come from a defective supply of gastric juice, or from defective peristaltic action. In other cases there will be marked nervous disturbances. These are very marked in the present instance, and may therefore coexist with the gastric symptoms. The man has gastric vertigo, headache, and neuralgic pains.

The man has evidently brought on this condition by his constant exhaustive attendance upon the brick-kilns and by his overuse of tobacco. Indeed, his symptoms are just those which we would expect to find in a case of chronic tobacco poisoning. The patient must be put upon a very careful diet of skimmed milk, from two pints up to



two quarts daily, must give up his coffee and tobacco altogether, and, if possible, change his occupation, for the present, at least.

*CASE II.*—The patient was a car driver until two years ago, when he gave up that business and became a night watchman. Three or four years ago he was frequently intemperate. He also chewed a great deal at that time, and drank much coffee. His sleep was insufficient, and his work hours were from six in the morning until after twelve at night. He has suffered from much the same symptoms as *Case I.*

Nearly all cases of dyspepsia have some well defined cause. You see at once what the cause has been in this instance. We cannot have, as physicians, too clear ideas of the action of certain substances. The baneful effects of intemperance upon the coating of the stomach are too well known to need mention. My constant, every day experience is proving to me that in the immoderate use of tobacco, coffee, and tea, we have another most fruitful source of dyspepsia and nervous derangements. When taken into the stomach several times daily, and in large quantities, they make the nerves of the stomach more sensitive, and increase the amount of the gastric juice, rendering it much more liquid and watery in consistency, and diminishing the proportion of pepsin. They also act as sedatives to the muscular wall of the stomach, thus impairing its power of peristalsis, and producing, when absorbed, a state of nervous hyperæsthesia. Tea and coffee in particular, when taken upon an empty stomach, are exceedingly injurious. None of these three articles in overdose make people violent; but they cause just as much unhappiness as does alcohol when taken immoderately. Just as there are many grave diseases following chronic alcoholism, so the overuse of tobacco, coffee, and tea gives rise to a horrible amount of functional disturbance.

I repeat, therefore, my statement made above that very many cases of dyspepsia depend upon the excess of some particular article of diet, joined perhaps, as in the present case, with some irregularity of meals. How must such patients be treated? In the first place this man must give up absolutely his tobacco and coffee, and place himself upon a plain diet. His stomach is weak, its muscular action impaired, and its nerves over-sensitive, giving rise to reflex disturbances, such as giddiness and palpitation of the heart. Our patient must not take much food at a time into his stomach. The best diet for him will be one of skimmed milk—one-half pint every four hours.

Our patient comes back to us to-day, showing the excellent results of our treatment. He has given up tobacco and coffee, and has not touched a morsel of solid food since you saw him last, and has not had a single attack of pain or indigestion. Sometimes milk is not well digested, when such is the case, I generally combine lime water with it. I begin with three ounces every two hours, then four ounces every three hours, until as much as three pints is taken in the course of the twenty-four hours. Another sovereign article of diet is butter-

milk. In buttermilk the casein of milk is coagulated and broken up so that the stomach is spared two steps of the regular process of digestion. Still another, excellent preparation of milk is koumyss. This is now made in America. It contains a good deal of carbonic acid. Milk is mixed with brewers' yeast, then corked and put on ice. Koumyss is a sparkling drink, very sedative and palatable.

Among drugs, arsenic, in small and gradually increasing doses, is a remedy of extreme importance.

I have found the following prescriptions of great use in certain forms of dyspepsia :

(1.) Sodæ bicarb., three drachms; acidi hydrocyani dil., forty-eight drops; tinct. valeriani, one ounce; syrup zingiberis, two ounces. Misce. Sig. a teaspoonful, thrice daily, in water.

(2.) Quiniæ sulph., sixteen grains; strychniæ sulph., one-third grain; acidi muriat. dil., one and a-half drachms; syrup zingiberis q. s. ad., four ounces. Misce. Sig. two teaspoonfuls in water, right after meals.

This is a case of flatulant dyspepsia, with impaired digestion and considerable accumulation of gas. There has been no coffee or tobacco poisoning in this case. The man is a sailor, forty-two years of age. For the last five months, he has suffered from gastric vertigo and slight pains after eating. His bowels are costive. The epithelium of his tongue is rough and its papillæ enlarged. Bread and tea do not affect him, but anything greasy does. Last spring he was in bed seven weeks with typhoid pneumonia, and dates his dyspepsia from that time. Here you see that the dyspepsia has been brought on by a prostrating illness.

The treatment in this case is very simple, for there has been no grave error of diet which needs correcting. We must make the stomach's work lighter by placing the patient on a carefully selected diet. This is very hard to do in the case of patients in this class of life. Such patients have to take what is put before them, or nothing at all. I will tell the man, however, to avoid heavy foods, fried foods, sweets, pastry, rich pudding. His diet should consist of such articles as eggs, milk, starchy vegetables, stewed fruits, a little butter with stale bread. After meals, I would advise him to take a ten grain pepsin powder, or better still, a couple of teaspoonfuls of prescription No. 2—(see case II.)—thrice daily, after meals. I say right after meals, for we want this recipe to be taken in the acid and not in the alkaline stage of digestion. Where there is marked hepatic disturbance, the following prescription is an excellent one:

(3.) Muriat. acid. dil., one-half drachm; tinct. nuc. vomicæ, one-half drachm; comp. infus. gentianæ, q. s. ad., four ounces. Misce. Sig. a dessert-spoonful after meals in water.

(4.) Also the following: Bismuthi subnit., one and a-half drachms; pepsin., one and a-half drachms; strychniæ sulph., one grain; tinct. cardamomi comp. q. s. ad., four ounces. Misce. Sig. a teaspoonful, thrice daily, in water. If there is much flatulence, increase the



amount of bismuth and pepsin; if the case is merely one of gastric atony, increase the amount of strychnia.

CASE IV.—The patient is an hostler, thirty-four years of age, and married. Has suffered from fullness in the stomach after meals since 1865. For the last seven months has complained of severe shooting pains in the pit of his stomach. These pains extend through to his back and up to his shoulder blades. His bowels have always been costive. The pains in his stomach come on about three hours after meals. The pains are relieved temporarily by eating, but come on again with renewed vigor. Has palpitation of the heart after any excitement. Occasionally has spells of giddiness. Urine is normal.

What is the cause of this man's attacks of gastralgia? There is no gastric ulcer, for the pain is not localized, and there is no vomiting and no hematemesis. There was, no doubt, originally some subacute gastritis which passed away, leaving behind a chronic gastralgia. This gastralgia follows the ordinary law. The pain comes on at the close of digestion, because the ingesta are then acrid and fermenting. The spells of pain last as long as there is any acrid matter in the stomach. This man has, therefore, a state of slow digestion, complicated with a pure neuralgic condition of the stomach.

I find that he is at present very careful as regards his diet, but that two or three years ago, he used a great deal of tobacco, and drank a large quantity of coffee daily. His occupation at that time was a most exposing one.

I will tell this patient to limit his diet to a gill of skimmed milk every two, or three hours, at first, then a-half a pint six times daily. He must also take from two to five drops of Fowler's solution when the paroxysm of pain overtakes him. Prescription No. 1—(see *Case II*)—will be of great benefit to him. If the Fowler's solution does not control the pain, let him use over the epigastrium, first, a blister two inches square, then a belladonna plaster six inches square.

CASE V.—This man has dyspepsia, urticaria, and post-nasal catarrh. He is a miner, and is at work in the mines ten hours daily. He has suffered from attacks of hives for the past four years. For over a year he has had the post-nasal catarrh. There is plenty of yellow, thick phlegm in his posterior nares, his appetite is irregular, his tongue thickly coated, his bowels either very costive, or very loose, and his urine high colored.

Upon examining the man's throat I find a red, swollen mucous membrane on each side of the pharynx. The post-nasal space is filled with a purulent discharge.

Urticaria is one of the most obscure and interesting of cutaneous affections. It is generally sympathetic of some digestive or nervous derangement. The effusion under the skin is usually reabsorbed by some reflex mechanism when the source of irritation is removed. While the eruption lasts, the burning and itching are intolerable. The urticaria has brought on a state of increased sensibility of the



mucous membrane of the throat, stomach, and intestines; a sort of confluent catarrh of the alimentary canal.

Treatment must be twofold—(1) The diet must be regulated. Milk is the best food. This man had better use prescription No. 3. If his bowels are costive I shall order some laxative—some sulphur with molasses, or put up with confection of orange, or given in wafers. (2) As a local application for the throat I would advise iodine, or, better, nitrate of silver. The brush by which this latter salt is applied must be so arranged that it can be touched to both of the nares separately. We must insist upon it that our patient give up his habit of constantly hawking and spitting.

[The man has now been under treatment three weeks. He has made very marked improvement in that time. His dyspepsia is all gone, and there has been no eruption of hives since you last saw him. The catarrh is gradually getting well.]

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## ORIGINAL ARTICLES.

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### FAULTY INNERVATION AS A FACTOR IN SKIN DISEASES,

BY

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Delpech, as early as 1832, (*Revue Med.*, vol. i,) called attention to the existence of nerve lesions due to compression from contracting cicatricial tissue. Hamilton (*Archives Gen. de Medecine*, 1838, t. ii) states that with pain, redness and swelling may occur in parts at a distance from the original injury, though in the course of the nerve, resembling the effects of a sub-aponeurotic abscess, and increasing and diminishing abruptly and even periodically.

Thus, Obs. I. and III., where wounds of the hand were followed by periodical swellings, limited to the regions of the nerves affected, and accompanied by pain and greatly increased action of the sudoriparous glands, these swellings disappearing as suddenly as they came; and Obs. IV., in which there was in addition a morbid production of hair.

Professor J. Roux (*Gaz. des Hop.*, 1840, p. 101) reports a case where a nervous filament was injured as the result of venesection, the consequent swelling being strictly limited to the parts appertaining to the injured nerve, namely, the thumb, index and medius fingers, which became also very sensitive to heat and cold. The importance of these swellings, in a diagnostic point of view, is insisted on by Remak, (*Oesterr. Zeitschr. f. prakt. Heilkunde*, 1860, No. 48.) Romberg (*Lehrbuch*, 1851, vol. i, p. 232) adds to these other results, such as diminution of calorification; inability of the part affected to withstand changes of temperature, cold water causing bullæ at the ends of

the fingers, a fact observed also by Dieffenbach in regard to portions of skin transplanted in plastic operations; livid color due to stasis of capillary circulation. Similar observations have been made by Brown-Sequard, and especially by Charcot (*Jeurn. de Physiol.*, 1859). So, also, by Samuel, (*Ulle trophischen nerven*, Leipzig, 1860,) by Paget, (*Medical Times*, 1864,) and by Weir Mitchell, Morehouse and Keen, (*Gun-shot wounds, and other injuries of the nerves*; Philadelphia, 1864.)

Of the cutaneous affections due to traumatic injuries of nerves, some may appear in the peripheral region of the nerve injured, others at a distance and upon parts supplied by nerves which have undergone no injury. The latter class must be attributed to reflex action. That an actual neuritis exists in such cases, is shown by the experiments upon animals of Descot, (*These de Paris*, 1822, No. 233,) and Dubreuilh, (*These de Montpellier*, 1845, No. 34,) by Vulpian and Tillaux, (*These d'agregation de chirurgie*, Paris, 1866,) and by Eulemburg and Landois, (*Gaz. Med. de Paris*, 1865.) Mitchell, Morehouse and Keen, in their work, based upon observations made during our recent civil war, divide the result of nerve lesions into four groups, the second being the alterations of the skin. Here there is generally at first œdema, the skin then becoming dry, thickened, yellowish or brown, and scaling off, while the nails become curved and thickened. The erythema, described by Paget, they have observed nineteen times out of fifty cases of partial lesion of the nerves, and Mougeot (*Recherches sur quelques troubles de Nutrition consecutifs aux affections des nerfs*, Paris, 1867,) considers one of the essential conditions of its existence to be a merely partial separation of the nerve from the nervous centres. He adds, that when a single nerve is affected, as, for example, the median or the cubital, the erythema only exists in that part of the skin where its final ramifications are distributed. Vesicles or bullæ, followed by ulceration, may also occur, and ulcerations, consecutive to compression of the median nerve and its irritation, appear and disappear, cicatrize or remain stationary, according as the patient, by the position of the limb, maintains or removes the compression and consequent irritation. Such a case is reported by Charcot, (*loc. cit.*, vol. ii, p. 108.) Earl, in Romberg, (*loc. cit.*, p. 16,) reports a case where redness and pemphigoid bullæ appeared several times consecutively as the result of an injury of the external cutaneous nerve by the thrust of a fork. Mougeot (*loc. cit.*, p. 41) mentions a case, reported by Gosselin, of ulcerations upon the palmar aspect of the middle and upon the extremity of the index fingers, resulting from incomplete division of the median nerve. Also one of Paget's cases, in which the radial and median nerves of a child, aged eleven years, were completely divided by a circular saw, and at the end of a year sensation had not returned to the last phalanges of the thumb and index finger, the parts chilling readily, and large bullæ forming upon the hand. In his *Surgical Pathology*, vol. i, p. 43, Paget reports a case of compression of the median nerve, followed by ulcerations, appearing or



disappearing according to the presence or absence of irritation due to this compression.

Weir Mitchell, (*Injuries of the Nerves and their consequences*, Philadelphia,) after alluding to Hutchinson's series (*Clin. Lectures and Reports*, London Hospital, 1866,) of injuries from cutting, mostly by glass, where loss of sensation and motion were serious and lasting, and with marked nutritive changes, quotes such a case, where division of the ulnar nerve and vessels, and of the median nerve, was followed by anæsthesia of the parts supplied, inflammation of the tips of three fingers unattended by sensation, and diminution of animal heat in all the parts paralyzed. At the extremity of the middle finger, was formed a subcutaneous bulla, the cuticle being elevated by effused serum, (subcuticular whitlow,) with a red areola.

He states, also, that there is no absolute physiological proof of the existence of trophic nerves; but, in the phenomena of nerve wounds, there are certain arguments in favor of the possibility of disorders of nutrition being capable of production by the irritation of ordinary nerves of sensation, and, indeed, of motion.

Létiévant, (*Traité des Sections Nerveuses*, Paris, 1873,) considers trophic changes as most prone to follow wounds of nerves which are distributed to the hands and feet, and as more rare after injuries to nerves supplying the upper portions of a limb.

Peripheral changes might, therefore, be anticipated after injury of the median nerve of the arm, which supplies tactile sensibility to the palmar surface of the hand, as in the following case:

M. O'B., of New Brunswick, an unmarried seamstress, aged forty-three years, applied to the Boston Dispensary for Skin Diseases, October 2d, 1874. About two years previously, she had injured the tissues over the second joint of the right thumb by falling with her whole weight upon the joint, while her hand was tightly clasped, thus cutting a deep gash upon its radial aspect, which now shows a ragged cicatrice.

On January 1st, 1874, the tissues of the last phalanx became tender, the skin grew hard. "like a corn," and peeled off. Tincture iodine was applied, causing great pain. Rubber cots were used to no purpose. In September the ball and end of the thumb festered. For this she desired treatment, as she was unable to pursue her trade of sewing coats.

October 2d, 1874, the whole last phalanx of the thumb is red and swollen, hot and tender to the touch, smooth and dry. Voluntary motion somewhat interfered with, but no spasms nor contraction. The joint proper does not appear to participate in the process. At the upper portion of the palmar aspect of the thumb are two small pustules, hardly raised above the level of the surrounding skin, and covered by a thick cuticle. These, when opened and poulticed, would scale off. Under diachylon ointment things would apparently improve. Then, with pains extending up the arm to the top of the shoulder, the whole process would repeat itself. Fearing that the median nerve had been, perhaps, crushed at the time of the injury to the thumb, and seeing



that the lesion hardly fell within the domain of dermatology proper, I requested Dr. J. J. Putnam to see the case, October 28th. He galvanized the thumb at intervals until April 14th, 1875, the patient continuing iron internally, and belladonna plaster externally. She derived so much benefit that she ceased attendance at that time. March 4, 1877. She again asked relief. Pustules like the others were again present, the ball of the thumb was painful and quite sensitive to pressure. There were also tender spots upon the palmar sides of the joints of the first and second phalanges.

The skin of the ball of the thumb was thickened, except where the festering process had just been completed; there it was thin and of a glossy red color. Drs. D. F. Lincoln and S. G. Webber saw her at this time, the latter gentleman being also kind enough to administer a six weeks' course of electricity. The patient then again disappeared.

November 9th, 1877. Patient has returned. The condition much as in March. Whole thumb enlarged and reddened, painful pustules all along, and under the free end of the nail and the nail itself being hard and dead, thickened, and of a yellowish brown color. The pustules make their appearance within twenty-four hours, then, in from twenty-four to forty-eight hours, they dry and scale off. The interval between this scaling and a new formation of pustules was formerly one of weeks; but now, practically, does not exist, the crops being continuous.

Under Dr. Putnam, treatment by electricity was recommenced, the woman's thumb being placed in a basin of water alongside of the negative pole of a galvanic battery, the positive pole having been put either at the back of the neck or on the arm, and as strong a current used as could be borne; this at intervals of a few days.

Early in January, 1878, a pustule formed, for the first time, at the root of the nail, underneath it, accompanied by sharp pain and softening of the nail, which, after the absorption of the pustule, began to grow very fast; probably a good effect of the galvanic treatment.

January 23d, 1878. During the last fortnight the ball of the thumb has been six times superficially cauterized with the gas cautery, the skin having previously been frozen with ether spray. No special improvement was, however, noticed from this stimulation. Galvanism has now been employed since November, and under this the pains passing from the thumb along the front of the arm to the top of the shoulder have diminished, and occur only at night. So, also, the pain in the end of the thumb is present only at night, and then only during an access of the festering process. Internally, the patient takes Fowler's solution, three drops *ter die*; and is "of the decided opinion that the thumb has done better during this treatment" by galvanism. She is able, already, to do a certain amount of sewing, and, although the ball of the thumb has become flabby, this appears to be due rather to absorption of subcutaneous tissue, than to actual atrophy of the muscles.

February 4. . Nearly well.

In a case reported, (*Berliner Klin. Wochenschr*, 10 Sept., 1877,) by Dr. W. Sander, of Berlin, of "Trophic disturbance following injury to the left median nerve," this nerve was injured by a cut four centimetres in length across the lower arm, a little above the styloid processes of the radius and ulna. Six flat, whitish, oval vesicles soon appeared, two being upon the thumb, two upon the index, and two upon the middle finger. They were from pea to bean size, and their contents, at first clear, soon became turbid, after which the vesicles dried to a scab and fell off, leaving cicatrices, which seem to form regardless of the absence of innervation. There were present in the fingers weariness, stiffness, immobility, numbness with pricking, and loss of tactile sensibility; the skin was flabby, red and smooth, and did not perspire. No change occurred in the nails while the patient was under observation. In this case the vesicles appeared in succession, the first being noticed as early as ten days after the wound, and the neuritis must be regarded as an acute process.

We may also regard this case as one of complete section of the nerve, whereas in my own the section was probably partial; for, according to Létievant, (*loc. cit.*), complete section of the median nerve causes immediate anæsthesia and paralysis, and eventually muscular atrophy and deformity; and Mitchell (*loc. cit.*) shows that, while, when nerves are wholly divided, blows or pressure may cause readily-healing ulcers; where nerves are partially divided, bullæ and superficial ulcers may appear, apparently without cause, assuming the form of the "sub-cutaneous whitlows" of Hutchinson, and painful or not, according as they occur in anæsthetic or hyperæsthetic regions. So, also, excessive and even bad-smelling perspiration, especially where neuritis is present; though later, where there is loss of function from atrophic changes, both oleaginous and sudoriparous glands may cease to act.

Assuming, then, that the local manifestations in my case arose from partial section of a branch of the median nerve, are we to regard them as due to direct or reflex irritation?

Mitchell (*loc. cit.*) quotes Daniellsen and Bœck as stating (*Recueil d'observations sur les Maladies de la Peau*, Christiania, 1860,) that in the anæsthetic form of leprosy the nerves undergo certain changes, propagated finally from periphery to centre, causing at first neuralgia, tingling and hyperæsthesia, which become intense, followed by anæsthesia and loss of motion as from gradual compression, the earlier symptoms being related to simple congestion of the neurilemma, the latest to a hyperplasia of the connective tissues within and without the nerve sheath, causing compression of the nerve fibres, and extinction of their functional life. He adds, that nerve-wounds may attack the cutaneous nutrition directly by irritation of fibres leading to the part, or reflectively, through the centres and by uninjured filaments upon the skin. He has seen a sudden accession of inflammation in a healing wound over the injured median nerve determine an immediate outbreak of neuralgia, ulcerated matrices of nails, and vesicular erup-



tion. Now, as we can hardly hold that the injured nerve was suppurating and exuding through the skin at its peripheral termination, like the dead nerve of a tooth through the gingival tissues, it seems fair to conclude that certain cells of the posterior cornua of the spinal cord were affected by transmission of irritation from the periphery, and that these cells again caused the actual tissue-changes in the tissues at the distal terminations of the nerves connected with these cells. In this connection, the following case is of interest:

J. M., aged forty years, shoemaker, applied to me, December 22d, 1873. In 1846, a knife was plunged into his left arm, along the inner aspect of the biceps muscle. It was seventeen weeks "before he could lift a teacup." Scar now present. In 1853, while holding a one-and-a-quarter-inch drill, a piece, an inch long, was split off and driven through his hand, between the metacarpal bones of the thumb and forefinger. Scar plain to-day. September 1st, 1872, a horny patch was noticed upon the ball of the thumb, as if this "had been burned by a hot iron." The thumb swelled, and after four days, deep fissures had formed across the ball, which was so sensitive as to prevent him entirely from working. He received the very best treatment for eczema without effect, and subsequently passed through the hands of various physicians, and, finally, of vacuum-pumpers, mesmerizers, and quacks of every description. Recently there appeared upon the ball of the thumb a blister of the size of a large bean. This he punctured, and its contents oozed out "as thick as molasses, and nearly half an inch high, and coagulated, as transparent as glass." This being washed off, the cut healed in four days; but in less than a week another smaller blister appeared, and when punctured, exhibited the same results, but took two weeks to heal, with a little watery running during this period.

At present there are horny patches, resembling those of old eczema, upon the ball of the thumb and upon the radial aspect of the tissues covering the metacarpal bone and the first phalanx of the fore-finger. On the thumb, the old skin was cracking off and new skin appearing. Pain on deep pressure. Whole thumb atrophied. The nail of this thumb was smaller and more rounded than that of its fellow. Cold is more readily and sharply felt in this thumb than in any other part of the body. Light superficial cauterization was used, followed by diachylon ointment, until February 8th, when Dr. J. J. Putnam was kind enough to employ galvanism, the positive pole being placed over the palmar surface of the thumb, the negative over the median nerve at the wrist, and later over other portions, and over the vertebral column. Improvement very marked for several weeks, the nail growing also quite rapidly.

February 26. Dr. Putnam tells me that for the last two days there has been less improvement. The soft parts of the thumb are much swollen, the skin dry and shining, great itching, and last night tingling sensations up the arm on the inner side and in the elbow-joint. The nail continues to grow well. The patient describes this as the



usual course of an attack, but that after twenty-four to thirty-six hours, the swelling begins to diminish, leaving the skin loose, hard and devitalized, and this then cracks and is thrown off. Gradually the end of the thumb shrinks to half its natural size. So it proved here; after which improvement was again manifested, though the fleshy parts of the thumb remained unnaturally soft; and within a fortnight the patient reported himself as "cured." A relapse, however, occurred, when he was given arsenic internally; and, externally, superficial cautery with a caustic potassa solution every second day, and was again treated by Dr. Putnam with electricity twice a week, until July, when he ceased attendance.

In August, 1877, I met him in Maine. Part of the intervening time, he stated, had been spent in an hospital for the insane. He considered that "electricity had cured" him. In January, 1878, he made the same statement upon calling on me, with his thanks, and upon Dr. Putnam with (most justly) a new patient.

In the cases under the care of Dr. Putnam and myself we are dealing with old injuries of nerves, consequent diminished powers of resistance on the part of the tissues supplied by these nerves, and continuous irritation of these tissues by external agencies of a mechanical nature arising from the occupation of the patients. On the other hand, Prof. J. S. Jewell reports, (*Archives of Dermatol.*, July, 1877,) cases which he regards as descending neuritis, which occurred immediately after impure vaccination by subcutaneous injection of old human virus, where the lesions, more peripherally situated than the point of inoculation, were upon tissues unirritated by external agencies.

In other cases, a morbid process, not traumatic, will cause reflex or sympathetic irritation at, apparently, as great a distance as possible from itself. Thus I have seen herpes labialis followed, in a day or two, by herpes of the anus, no other part of the body being affected. The reflex irritation of worms in the rectum upon the nasal mucous membrane has been observed by every one. There is at present a most interesting case under my charge, the explanation of the nature of which I owe to Dr. J. C. White. He has seen but few such cases. I never saw one before to my knowledge. In this, as in all of Dr. White's similar cases, vulvar irritation, in this case that of an old eczema, has preceded or been accompanied by a deep-seated and persistent dermatitis of the chin, the expression of a neurosis of reflex or sympathetic origin.

Or, again, the sympathy may be between the interior and the surface of the body. Thus a rosacea may be due to the frequent flushing of the face following heavy meals. An acute gastric catarrh will often be accompanied, or immediately followed, by an acne composed of miliary pustules, which dry up and scale off as the gastritis passes away. Inversely, a cold, wet cloth applied to the forehead often causes, almost at once, the vomiting necessary to relieve the sick headache of indigestion. Urtricia resulting from indigestion is only too common, and cases of alternating asthma and eczema are not very rare.

But the nerves, or their ganglia, may not merely transmit a morbid influence; this may originate with them, as has been thoroughly shown in many cases of zoster, and especially in Kaposi's well known case of *zona recurrens*. So, also, general pruritus, (*Kaposi-Ueber Sensibilitäts-Neurosen der Haut. Viertel. f. Derm. u. Syph.*, 1876, III Hefte.), hyper-and-an-æsthesia, analgesia, (*Fournier on Syph.*) and dermatalgia represent systemic revolts where the battle-field is, very truly, the skin; but the real enemy is the nervous system.

The multifarious conditions of increased, diminished, or perverted growth due to or influenced by vaso-motor, or other nerve agencies, are too numerous to be here considered. They are well summed up by Gamberini, (*Giorn. Ital. d. Mal. Ven. ed. Pelle.*, Aprile, 1877.) Among these may be found the nerve-naevi of T. Simon, alopecia areata, cell or pigment hypertrophies and atrophies, Hebra's erythema multiforme, Wilson's Nervous Excoriations, (*Lectures*, Lond., 1875, p. 192,) and others. Nor is it necessary to more than allude to the action of the mind upon the body through the nerves, as shown by cutis anserina, or pigment changes of the hair or skin due to mental emotion.

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## RUPTURE OF THE CORPUS SPONGIOSUM.

REPORTED BY

DR. THOMAS J. LOUGHLIN.

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The following case is interesting, as illustrating a somewhat rare accident, which may occur during coition. Hugh G., aged twenty-nine, born in Ireland, and married, came under treatment for extensive extravasation of blood in the penis, scrotum, and perineum. His story was that, while having connection with his wife, his penis gave a "snap," which, according to his account, could be heard several yards away. Immediately afterwards his penis began to swell and give him intense pain. On examination, in consultation with Dr. Satterthwaite, the penis, scrotum, and perineum were found discolored by blood and greatly infiltrated with serum. It was thought probable at the time that there was rupture of the corpus spongiosum. Bandages and support to the penis and scrotum were ordered, together with external applications of lead and opium. When seen again, on the seventh day after the accident, there was discovered a bloody tumor at the junction of the penis and scrotum. At this point, it was surmised, the rupture had taken place. As the parts were greatly reduced in size, and were evidently returning to their ordinary condition, and the hematoma contained a considerable amount of serum, in addition to its blood-clot, the aspirator needle was introduced, and the excess of serum withdrawn. Three days later, however, suppuration set in within the sac. A free opening had to be made, liberating about two drachms of pus. On the fourteenth day the wound had

healed and the parts were entirely restored. As bearing upon the cause of rupture, the patient said he had never suffered from any disease of the sexual parts, and there was no mechanical obstruction, or, indeed, any hindrance made to the "act." Since recovery coition has been successfully accomplished.

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## PERISCOPE.

### COLLABORATORS.

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*Dermatology*.—HENRY G. PIFFARD, M. D., Professor of Dermatology in the University of New York.

*Diseases of the Nervous System*.—EDWARD C. SEGUIN, M. D., Professor of Diseases of the Nervous System in the College of Physicians and Surgeons, New York.

*Diseases of Women and Children*.—FRANK P. FOSTER, M. D., Gynecologist to the Out-Patient Department, New York Hospital.

*General Surgery*.—EDWARD J. BERMINGHAM, M. D., Surgeon to the Good Samaritan Hospital for Diseases of the Rectum, and to the Out-Patient Department, Bellevue Hospital, New York.

*Genito-Urinary Diseases and Syphilis*.—ROBERT W. TAYLOR, M. D., Professor of Dermatology in the University of Vermont.

*Ophthalmology and Otology*.—S. B. ST. JOHN, M. D., Assistant Surgeon to the New York Eye and Ear Infirmary.

*Orthopedic Surgery*.—NEWTON M. SHAFFER, M. D., Surgeon to the New York Orthopedic Dispensary and Hospital.

*Practical Medicine*.—E. DARWIN HUDSON, JR., M. D., Professor of Practice of Medicine, Woman's Medical College, New York.

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## RECENT CONTRIBUTIONS TO THE PHYSIOLOGY OF THE BRAIN.

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Messrs. Frank and Pitres presented, during the month of December, 1877, two important reports on experimental researches into the functions of the brain. In the second, (*Progres Medical*, 19th January, 1878,) they state that by faradizing those parts of the white centre of the hemisphere which lie underneath the so-called motor centres, they were able to produce definite movements in the body on the opposite side. This tract of white matter, constituting the anterior portion of the internal capsule, contains distinct (physiologically) fasciculi, which are connected on the one hand with the motor districts of the cortex, and on the other with peripheral parts of the body across the median line. In the first communication, (*Progres Medical*, 5th January, 1878,) they report researches with respect to the speed of transmission of impulses produced by exciting various parts of the nervous centres, with the following general results: That the retardation of an impulse produced in the cortex cerebri in its passage to the middle of the cervical enlargement of the spinal cord, equals 9-200 seconds, and if 2 mm. of cortical gray matter be removed, the retardation falls to 6-200 seconds. They conclude that the cortex does not behave like a conductor, but like a centre.

These experiments are of great importance in the now much mooted question of localization of functions in the brain. They speak strongly in favor of the generally received view that the cerebrum



does contain centres—the chief of which are now known; and they seem to utterly overthrow Schiff's theory of reflex action of the cortical centres.

E. C. S.

## TREATMENT OF FURUNCLES—NOTE ON A NEW PROPERTY OF ARNICA,

BY

DR. N. PLANAT.

(*Lyon Medical*, February 3, 1878.)

As the result of physiological experiments, Dr. Planat has been led to the use of arnica in all cases of superficial acute inflammation, as furuncles, anginas, erysipelas, etc. He states that arnica aborts all furuncular eruptions, except those accompanied by diabetes, with remarkable promptness.

For external use he employs:

RECIPE.—Extract of fresh arnica flowers, 10 parts; honey, 20 parts.

If this is too liquid he adds lycopodium. The mixture is applied to the inflamed part and covered with oil-silk.

Equally good results will be obtained in the same cases by the internal administration of tincture of arnica in doses of twenty-five to thirty drops every two hours. M. Planat adds that the extinction of the furuncular eruption is so rapid that it seems impossible to deny a specific elective action. (*J. de Therap.*, 25th January, 1878.)

H. G. P.

## GLYCERINE IN THE TREATMENT OF INTERNAL HEMORRHOIDS,

BY

DAVID YOUNG, M. D., Florence.

(*The Practitioner*, January, 1878.)

The author reports five cases in which marked and permanent benefit followed the internal administration of glycerine in from two to three drachm doses, in water, night and morning. In summing-up he says: The foregoing cases seem to show that we may be able to add glycerine to our list of palliatives for this troublesome malady. There are many patients who will not submit to surgical interference, and others—as, for example, consumptives in advanced stages of their disease—to whom one would scarcely recommend it, so that we are glad to welcome any means which would alleviate such a distressing condition. Not the least recommendation of this plan is, that it is both easy and pleasant, and probably also, especially in the case of phthisical patients, beneficial in some other respects. None of the patients to whom I have given it have experienced any difficulty in taking it, and, when the sweet taste is an objection, I usually order a little lemon juice to be added to each dose.

E. J. B.

## ERGOT IN HEMORRHOIDS,

BY

EDWARD S. LANSING, M. D.

*(Philadelphia Medical Times, October 13, 1877.)*

Considering the pathological condition denominated hemorrhoids to consist in an enlarged condition of the veins, (an increased length and diameter, as a result of hæmostatic pressure at some time,) which continues after the inducing cause or causes are removed, simply on account of relaxed and feeble condition of their coats, and conceding the power of ergot upon that greatest aggregation of unstripped muscular fibres in the human system—the uterus—also its power upon the capillaries, where the presence of the unstripped fibre has with difficulty been determined, as in hæmaturia and chronic congestion of the spinal cord, it suggested itself that ergot ought to relieve, and, with so many favorable factors, one could reasonably expect it would cure many cases of hemorrhoids. Having an intractable case on hand, of twelve years' standing, I tested it. I used ergotin in suppositories, four grains each, night and morning at first; subsequently at night only. The first effects of the ergotin was to produce pain for half an hour or more; but, after the use of three or four, no unpleasant effect attended their use. The hæmorrhage ceased, the congested condition of the parts yielded, the hyperæsthesia was replaced by normal sensation, the hard, cordy condition of the veins passed away, and the slight tumefaction remaining suggested interstitial fibrinous exudation or cellular hyperplasia. Having treated five cases with the ergot, in four of which the result was more satisfactory than I anticipated, the fifth is still under active treatment. Having never seen the treatment suggested, and the result in my case being so happy, I offer it that others may test it, and possibly much relief accrue to a numerous class of great sufferers.

E. J. B.

SEVERE INJURY OF THE SKULL AND LOSS OF BRAIN  
SUBSTANCE, WITH RECOVERY,

BY

M. G. PARSONS, M. D.

*(Journal South. Ill. Med. Association, February, 1878.)*

I was called, November 23d, 1877, to see William S——, aged eighteen, German descent, who had been helping to saw wood with a circular saw driven by a horse power. By pinching the saw in some way, the saw, together with the balance-wheel and the entire frame which held it, was thrown from the foundation on which it rested, while running at a high rate of speed, striking the patient upon the top of the head, ranging from back to front, in a line from the right ear to the left eye, making an incision of about five inches long through the scalp and integument covering the forehead, and through

the outer table of the skull, of about four inches, and through the inner table two and one-half inches. The accident occurred at ten o'clock A. M., and I did not see him until dark that night. During the time, and until the wound was dressed, there must have escaped at least five or six drachms of brain substance.

Dr. Ormsby kindly assisted me in the operation, which was done by carefully removing the spiculae of bone from the wound, several pieces of which were taken from the opening through which the brain escaped. In all, about fifteen pieces of bone were removed, some of which were picked out of the mangled portion of the brain, which, together with his excitement, caused considerable brain to escape during the operation. After removing all the loose bone, we drew the wound together with sutures, leaving the lower portion of the wound open for drainage. The operation was performed without anæsthetic. Applied warm water dressings, gave brandy and morphine. Pulse ranging for the next twenty-four hours from forty to sixty, quite irregular most of the time. I saw the patient next day at four A. M. and twelve M. I found him quiet, pulse sixty; and more regular; had taken some nourishment. Bowels constipated, and it was with much difficulty that I succeeded in getting them opened, not until he had taken five or six ounces of sulphate magnesia. He suffered considerable pain, but was only unconscious during the first three days, and only at intervals. I visited him every day for four days; used carbolic acid dressing after the first night. Visited on the sixth day again, and found him convalescing rapidly. Dismissed him with orders that if any unfavorable symptoms should occur to inform me at once. All the treatment I gave him was bromide potassium, in fifteen-grain doses, every three or four hours, for the first three days. The patient came to town on the fifteenth day, a distance of ten miles, in a lumber wagon, and had not had an unfavorable symptom since the third day after the accident. I removed the two remaining stitches after he came to town. There is no depression and no tenderness in the region of the wound. The patient is now at work, and says he will go to the next war, feeling perfectly safe.

E. J. B.

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## OPERATION FOR THE CURE OF FISTULA IN ANO BY MEANS OF THE ELASTIC LIGATURE,

BY

J. L. SUESSEKOTT, M. D.,

*Philadelphia Medical Times*, February 10, 1888.

Hannah H., aged about twenty years, had suffered some years with hemorrhoids, which resulted in two anal fistulas, one on either side of the outlet, and both including the greater portion of the sphincter. The one on the right side was situated farthest from the anal orifice, and extended about three and one-half inches alongside of the rectum.



At the date above mentioned, after having secured a good state of anæsthesia with chloroform, I introduced, by means of an eye-probe, into each track, a strong ligature, composed of the elastic cord so commonly used by ladies about their dresses, and also by milliners in their work. They were both drawn as tightly as could be conveniently done, and the patient was placed under the influence of a powerful anodyne. The one on the left side cut its way through in seven or eight days, the other one in about two weeks. Both fissures healed promptly, and the patient, who has since been the mother of one child, considers herself perfectly sound. No application was used to favor the healing of the wounds, and the suffering, which for the first few days was controlled by the anodyne, was hardly worth mentioning.

E. J. B.

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## IODOFORM AS A LOCAL APPLICATION,

BY

WYNDHAM COTTLE, M. A., M. B., OXON.

(*The British Medical Journal*, February 9, 1878.)

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At a time when many new remedies are constantly being brought to the notice of the profession, and often lauded as of extraordinary virtue, but, after a longer and more extended trial, disappear from practice and are heard of no more, I should feel some disinclination to call attention to a not widely known drug, had not so high an authority as Mr. Berkeley Hill already done so. But, indeed, iodoform scarcely comes within this category. It has been in extensive use for some time by many surgeons, and, during the last two or three years, I have experimented with and prescribed it largely, and with the most encouraging results. First discovered about the year 1824, by Serullas, its properties have long been known to chemists. It is readily obtained by adding an alcoholic solution of potash to tincture of iodine, and crystallizes as a yellow lustrous coarse-grained powder of a peculiar pungent, penetrating odor. It stands in the same relation to its analogues, chloroform and bromoform, as hydriodic acid does to hydrochloric and hydrobromic. It may be regarded as chloroform, ( $\text{C H Cl}_3$ ), in which the three atoms of chlorine are replaced by three of iodine, ( $\text{C H I}_3$ ). It also forms substitution compounds with chlorine and bromine. It is sparingly soluble in water and glycerine, less sparingly so in alcohol and warm oil, but ready soluble in ether, and to a still greater degree in chloroform.

Two years ago, I made solution of iodoform in alcohol and ether; but, as the liquid rapidly became of a dark iodine tint, I feared that some substitution-product or decomposition might take place in the liquid, and generally employed the solution in warm oil. Chloroform is, I believe, its most effective solvent. Iodoform can readily, by trituration, be made into an ointment with either lard or vaseline, and its odor, in some measure, disguised by the addition of essential oils,

as the essential oil of almonds. As a powder, it can be employed alone or diluted with Fuller's earth, magnesia, or tannin; the last-mentioned body having the peculiar property of, in some measure, removing its powerful and disagreeable odor. In the form of suppositories, iodoform has been employed as a local anodyne, but with no marked benefit, as I understand, though I have no experience of it in this respect. As a powder, it has been extensively applied to cancers and venereal sores; and I have to thank my friend Mr. George Perry for calling my attention to its use in these cases, when I was at once struck by the very remarkable results produced. Its action can, perhaps, be best shown by stating its effect in the several affections in which I have applied it.

**VENEREAL SORES.**—Iodoform seems to act equally well in these cases, whether they are ordinary venereal sores or genuine hard or soft chancres, and whether situated beneath the prepuce or on other parts. Its action seems to be that of a topical irritant in some measure, and it may set up too much local action, if applied to an inflamed sore or wound, as Mr. Berkeley Hill points out in his paper on the subject, in the *British Medical Journal* of January 26, 1878. It should not, therefore, be applied to a sore when acutely inflamed.

From records of cases, I find that twenty cases of venereal sores classed "Primary Syphilis," which occurred in practice in their chance sequence and without any effort at selection, were treated by me by the ordinary local methods, with or without internal remedies. These were, on an average, rather more than twice as long under treatment, before the sores were completely healed, as the same number of other cases, taken in a similar way, and under precisely similar conditions, in which the only remedial measure was the topical application of iodoform. These results are the most encouraging when I add that, in patients so treated, there is diminished risk of buboes and lessened constitutional depression from the more rapid progress of the cases. It seemed to me also that the sequence of secondary syphilis was less frequent. Iodoform acts particularly well in cases where there is a disposition to slough.

**BUBOES, SYPHILITIC ULCERATION, ETC.**—In practice, buboes that are most tedious and indolent are of frequent occurrence. They often have deep and extensive sinuses and fissures that show little or no inclination to heal, and sorely tax the patience, both of the surgeon and of the patient. I have found that these cases almost invariably rapidly granulate, contract, and cicatrize by the application of iodoform; and the same obtains in the late forms of syphilitic ulceration. A man, about twenty-eight years of age, with serpiginous ulceration of syphilitic origin, which, first breaking out in the groin, had extended over the lower part of the abdomen and upper part of the thigh, and was for over a year under treatment, with every likely remedy, including change to the seaside. In this case nothing seemed to check the morbid process, or to set up healthy action, till iodoform was called into requisition. Under its use the ulceration had almost healed,



when the patient was lost sight of. I have often injected the deep sinuses that may result from buboes, etc., with a solution of iodoform, and have frequently found them mend under this treatment when other means have failed. As an injection in gonorrhœa, in the few cases in which it was tried, it seemed to set up so much inflammation that I abandoned its use.

**CHRONIC ULCERS.**—In ulcers about the lower extremities, and, indeed, elsewhere, I have formed a very high opinion of iodoform as a therapeutic agent. I have used it largely, both at the hospital and in private. Ulcers that have remained open for years, and on the treatment of which much care and skill have been expended, often close in a few weeks under its influence; but the same caution must be repeated as in the case of venereal sores. It will only irritate the actively inflamed wound. It is the indolent ulcer, from whatever cause it may arise, whether from varicose veins, malnutrition, syphilis or injury, that is especially benefited by iodoform. Repeatedly, under its use, I have seen a surface, glazed or œdematous, rapidly take on healthy action, granulate, and heal; and this where other measures have been tried for months, or even longer, without effect. Often, too, the pain that so frequently accompanies these ulcerative processes ceases after iodoform has been applied for a few hours.

**AS A PARASITICIDE.**—In many cases of ringworm of the scalp of long duration, and which have been before the subject of much and careful treatment, I have prescribed iodoform in the form of an ointment. In several of these a speedy improvement ensued, spores being no longer to be found, and the parts returning to a state of health; but I met, in some instances, with considerable difficulty in inducing the parents to apply the remedy, on account of its powerful odor. It set up no violent inflammation, and I hope it may prove an useful adjunct to the means at our disposal for combating that disease.

Chloasma quickly yields to this agent; but, again, its odor is an insuperable objection to its employment in the treatment of this disease. The results that I obtained from its application in several cases of sycosis were not encouraging, as it seemed to give rise to undue irritation. In the form of powder, I have used iodoform in several cases of lupus, with ulceration and rodent ulcer; but my observations on its conduct in these cases have not been, at present, sufficiently complete to warrant a definite opinion.

A word, in conclusion, as to its mode of application. If used as a powder, iodoform should be dusted on the ulcerated surface, and a piece of dry lint, soaked in a weak solution of carbolic acid, may be laid over it, and this process repeated night and morning. Undiluted, I have often found it apt to produce irritation and pain; and, therefore, generally prescribe it mixed with equal parts of either Fuller's earth or tannin. As a parasiticide, I have used it as an ointment with about twenty grains to an ounce of lard, and have directed it to be applied twice daily. Such an ointment, spread on lint, is a convenient mode of application to a wound or ulcer, and its employ-



ment in this form prevents the risk of dropping this disagreeable smelling drug on the patient's clothes, etc. If an ointment of the strength named causes inflammation or pain, it may be diluted. I am also in the habit of ordering iodoform in combination with a salt of mercury, etc., with satisfactory results. So, also, it may most conveniently and easily be applied by painting the part with its solution in alcohol, chloroform, or ether, as Mr. Hill describes. E. J. B.

## AMPUTATION OF ARM WITHOUT LIGATURES,

BY

R. H. MILNER, M. D.,

(*Philadelphia Medical Times*, October 27, 1877)

John Boyd, Jr., and Olmstead Greene, colored, were employed in blasting. They had bored a hole about two inches in diameter to the depth of twelve feet in the solid rock. This was charged on the evening of the third of March. On attempting to fire the charge on the morning of the fourth, it was found that the fuse had become saturated with water at some point, and would not carry the fire to the powder. Against the standing order of Mr. Malone, they proceeded to bore out the charge to make room for another. Unfortunately, just as they were about to succeed in this hazardous undertaking, the drill, an iron rod one and one-half inches in diameter, and twelve feet long, struck fire and ignited the charge. As both men had a tight grasp on the drill, which they were working with their hands, these members were literally torn to pieces. Boyd fared worst, losing both hands, the right being removed at the junction of the lower and middle thirds of the forearm. The left humerus was also fractured about the middle. The right arm was amputated first, and no trouble was found in finding and ligating the arteries; but on removing the left and slacking the tourniquet, it was found that no blood, with the exception of a little venous oozing, flowed. Nothing approaching the spurting of an artery could be seen, even after the tourniquet had been entirely removed. A most diligent search for the arteries was entirely futile. The patient was left with a competent attendant, while his fellow sufferer was attended to. At the end of two hours another and more thorough search for the arteries was made, with no better success. The stump was then dressed with interrupted suture, maltese cross, and bandage in the usual manner. The fracture was treated by placing the arm in a tin trough. The stump of this arm healed sooner than did that of the right, the healing of the latter being delayed by suppuration, depending on extensive powder-burns on the arm from the seat of amputation to the shoulder. There was at no time any hemorrhage from the left arm, nor was there any sloughing of the flaps. That the circulation was not interfered with by the fracture of the humerus is certain, as the pulsation of the brachial artery could be felt as far down as the elbow. E. J. B.

# THE HOSPITAL GAZETTE

AND

## ARCHIVES OF CLINICAL SURGERY.

A SEMI-MONTHLY JOURNAL OF MEDICINE AND SURGERY,

EDITED BY

EDWARD J. BERMINGHAM, M.D., and FREDERICK A. LYONS, M.D.

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### EDITORIAL.

#### SPECIAL NOTICE TO OUR SUBSCRIBERS.

In deference to the expressed wishes of a large number of our friends and subscribers, we have concluded to materially increase the size of the GAZETTE and to publish it as often as ONCE A WEEK. Whether our course will meet with general approval time alone will tell. We shall endeavor in the future, as in the past, to merit the approbation and support of each and every member of the profession, to whom we wish to express our thanks for the kind encouragement we have uniformly received. The journal will be conducted in the same spirit and with the same independence as has characterized it from the beginning, and our subscribers may rely upon the fact that the GAZETTE will be published solely in their interest. Editorially, the only change which will be made will be the addition of the name of Dr. H. H. Kane, as *Associate Editor*. Particular attention will be given to reporting the best clinical lectures delivered in New York and Philadelphia, to the "Periscope" and "Hospital Records." We shall also from time to time give translations of the admirable clinical lectures delivered at the Parisian hospitals, and shall not ignore our German cousins, to whom medical science owes so much. In short,

all the departments of a well-conducted journal will be represented, and we shall aim at the highest standard of medical literature.

Hereafter the GAZETTE will appear regularly every Thursday. Each number will contain twenty closely-printed pages of reading matter, making 1040 pages annually, instead of 576 as at present. Notwithstanding this very great increase in the amount of matter furnished, the subscription will be placed at the remarkably low price of \$2.00 per annum, including postage; thus placing the journal within the reach of every practitioner. The first weekly number will be issued on April 4th, and there will be no alteration in the form or paging of the GAZETTE.

...

### SURGEON-GENERAL WILLIAM A. HAMMOND.

The committee on military affairs of the U. S. Senate to whom was referred the bill for the relief of William A. Hammond, late Surgeon-General of the Army, which authorizes the President to review the proceedings of the court-martial by which Dr. H. was tried in 1864, and to annul and set aside the proceedings of said court-martial, should he deem it proper so to do, and also to place Dr. H.'s name on the retired list of the army; has reported favorably thereon.

We are certain that every one acquainted with the facts of this case will be pleased to hear that such a distinguished member of the profession and accomplished gentleman, is about to have a wrong redressed after so many years. It must be gratifying to Dr. H. to know that throughout the 14 years which have elapsed since his trial, he has always had the confidence of the profession, and as far as we can learn, not a single member conversant with the facts at the time, believes that Dr. H. was guilty of anything more than an error of judgment, and that the real cause of his degradation was the ill-will of his powerful superior in the war department, Secretary Stanton. It is quite evident that the Senate committee views the matter in this light, as it is disposed to give the doctor permission for a review of his case and to repair the damage inflicted in the only way possible,—an honorable restoration to the army. In summing up the report to the Senate, the committee says:

"Let Dr. Hammond, in event he shall satisfy the President of his right thereto, be restored to his family, his friends and his profession, freed from every taint or blemish which has hitherto been inflicted upon him under fortuitous circumstances. His brethern of the medical profession honor his name and fame, and his countrymen look upon him with pride as foremost in the ranks of American Scientists, humanitarians and gentlemen. Your committee believe this to be a case wherein the Constitutional prerogative of Congress to redress grievances may be safely, justly and fairly exercised, especially since the President is invested, by the provisions of the bill, with wise discretion. If he find against the merits and equities of the case, then the relief sought must be denied. If he find otherwise, and



hence favorably, Dr. Hammond will then receive that reparation to which he is entitled, and which avoids, by the terms of the bill, all reflection and humiliation upon any other party concerned."



### IMPROPER EXHIBITIONS.

Some time since we had the curiosity to stray into a place of amusement known as the "New American Museum," and were surprised to see a couple of poor, harmless idiots exhibited under the name of "Wild Australian Bushmen." We wondered at the time that the humanitarian Mr. Bergh had not taken cognizance of an act so revolting to refined and cultivated people, and should have directed his attention to the matter at the time, had not other affairs of importance supervened to preoccupy us. We subsequently learned that the poor unfortunates had been removed to other quarters.

Lately, however, we heard that a "double-headed child" was the great attraction at this place of amusement, and in order to verify the report we took occasion to visit the resort. We found a poor little unfortunate, at that time nine weeks old, who was deformed by what seemed to us to be a cephalobifida, the tumor being as large as its head proper. The parents, who were present, and had charge of their offspring, would not allow an examination to be made, so that we cannot speak positively as to the nature of the excrescence. The father seemed proud of his distinction, and told us very confidently that the child had a double passage, and that the excrement from each was of different colors.

We do not wish in this place to discuss the case as one of scientific interest, but to look at it altogether in its moral aspect.

It seems to us to be revolting in the extreme for a poor little harmless sufferer from such a formidable disease, to be exposed thus to the public gaze. If the parents themselves have so little self-respect as to sacrifice the commonest feelings of humanity by allowing their malformed offspring to be made the object of the morbid curiosity of vulgar spectators for the sake a little money, they should be compelled by law to desist from offending the moral sense of the community by putting up such a pitiable object for exhibition. The idea of exposing to public view the sufferings and monstrosities of human nature, for no useful purpose, is so disgraceful to all right-thinking people that it is a marvel that such a thing is tolerated for an instant. The managers of a place of *amusement* who make money in such a disreputable manner, are too barbarous to be tolerated in a civilized community, and the place where such an exhibition is made should be closed.

We have a Society for the Prevention of Cruelty to Children, and we think no worthier case for their interference could be found. Not only is it an enormity against the child, but the moral effect on the people is debasing to the utmost degree. Such an exhibition is unpardonable, and cannot be excused in any way. It is time that some influence should be brought to bear in the right direction to have such outrages stopped.

## NEW YORK COLLEGE OF VETERINARY SURGEONS.

Among the college commencements celebrated recently was that of the New York College of Veterinary Surgeons, which, according to the newspaper accounts, went off with a great deal of credit, the trustees and faculty having been honored on the part of the City by the venerable philanthropist, Mr. Peter Cooper; and on behalf of the medical profession by no less a personage than Prof. Wm. A. Hammond, who delivered the address of the evening, upon "Equine Psychology."

Any effort to elevate veterinary medicine to the position of a science should meet with the encouragement and support of every cultivated and high-minded person, and more especially should the members of the medical profession countenance and sustain an institution, the object of which is to educate men to intelligently and scientifically treat our domestic animals. To such a course we should be the last to take an exception, but when we see an institution engaged in what the profession understands as "irregular practices" receiving the support of those to whom we look for an example of professional honor and probity, we cannot refrain from calling the attention of the medical public to the facts.

We have before us a large circular entitled "The People's Declaration of Facts!!!" which is a collection of testimonials regarding the efficiency of a "Superlative Cure" "prepared only by Geo. W. Busted," who is the Medical Director of the New York College of Veterinary Surgeons. This "Superlative Cure" is one of the many *cure-alls* with which the drug market is flooded, and on the circular we find the following names endorsing its many virtues: E. G. Rawson, M.D., President of the New York College of Veterinary Surgeons; R. Kelly, one of the trustees, and D. C. Comstock, M.D., and L. G. Fairchild, Ph.D., members of the faculty of the same institution. We have seen a bottle of this "Superlative Cure," the label of which is embellished by a portrait of the proprietor.

This one fact which alone should be sufficient to condemn the institution as far as the medical profession is concerned, but it is not the only one in existence. Amongst the faculty we find the name of "J. A. Goings, M.R.C.V.S., Prof. of Surgery and Surgical Pathology." For the enlightenment of the profession we would place alongside of this the following advertisement, from a leading sporting paper:

**WORMS! WORMS! WORMS!**

(Here follows a testimonial.—Ed.)

GOINGS' WORM DESTROYER,

Prepared by Prof. J. A. GOINGS, M.R.C.V.S.E.,  
Veterinary Editor "*Spirit of the Times*,"  
&c., &c.

Another advertisement reads:

What is the Matter with My Horse ?

WORMS ! WORMS ! WORMS !

What will Cure Him ?

GOING'S WORM DESTROYER !

&c., &c.

We would say that this is only a small fraction of the advertising done by Mr. Going, who is the representative man of the faculty of the New York College of Veterinary Surgeons. He is the proprietor of "Copeman's Tonic Powder for Horses," the recipe for which, his advertisement informs us, he purchased from the widow of the late Prof. Copeman. As "Veterinary Editor" of the *Spirit of the Times* he is engaged in corresponding openly with horsemen in all parts of the country. Periodically he makes a circuit, his appearance in each place being heralded beforehand. We have seen a circular from Mr. G. setting forth his qualifications, and addressed to a gentleman in this city, soliciting his patronage.

We think that, in the face of these facts, no professional man—no physician bound by the ethics of the profession—has the right to recognize such an institution, and we are certain that every medical man connected with the college will receive the censure of his professional brethren. Indeed, when the County Society thought proper to insist upon the withdrawal of professional names from the advertisements of the Apollinaris and Hunjadi Janos waters, we are sure that as soon as its attention is called to this institution that a similar course will be taken with those connected either directly or indirectly with it and coming under the jurisdiction of the Society.

But to return to Dr. Hammond. He has certainly brought no honor to the profession by the course he pursued of officiating at the commencement of this institution ; and if we are informed correctly, the character of the college was fully explained to him one week before the commencement exercises, but he declined to withdraw from his engagement. We cannot congratulate the doctor upon the honor of addressing this graduating class—three in number ; two of whom, we understand, had been rejected at the examination for their degree, when the college was under praiseworthy management. The third graduate was the brother of Prof. J. A. Going.

The following are the medical men connected directly with the New York College of Veterinary Surgeons :

Edmund G. Rawson, M.D., *President of the College and Emeritus Professor of Theory and Practice.*

D. C. Comstock, M.D., *Sec. of Faculty, and Prof. of Anatomy, General and Comparative.*

Thos. A. Hawkins, M.D., *Prof. of Physiology and Chemistry.*

Erskine S. Bates, M.D., *Prof. of Materia Medica and Therapeutics.*

Edward C. Mann, M.D., *Prof. of Histology and Pathology.*

Thos. H. Skinner, M.D., *Prof. of Obstetrics.*



## LECTURES.

LECTURES ON PARALYSIS AND CONVULSIONS AS  
EFFECTS OF ORGANIC DISEASE OF THE BRAIN.

Delivered at Bellevue Hospital Medical College, New York,

BY

C. E. BROWN-SEQUARD, M.D., ETC.

## LECTURE VII.

GENTLEMEN—In the preceding lectures I have tried to show that though the symptoms are exceedingly variable in brain disease, we can generally come to the diagnosis of the seat of the lesion. To-day I shall continue on the same subject. What remains to be examined is what relates to the convolutions of the brain. Certainly they are parts of the cerebral structure that produce exceedingly variable symptoms. We may have a great deal of difficulty in coming to a conclusion as to the seat of the lesion, but still there are some points that may lead us to a correct diagnosis.

Before coming to the symptoms produced by disease, there is one point, which I have already mentioned many times, but which I must now again revert to. This point is, as to whether the convolutions contain the psycho-motor centers.

Within the last five or six years there has been a great effort in Germany, England, France, and in this country to determine and prove this point. There has been a strong effort to show that certain parts of the convolutions of the brain are places in which the will power acts to produce voluntary movements. The parts in front of the fissure of Rolando, and behind, and near the Sylvian fissure are the parts where the will power acts to produce voluntary motion. The facts on which these views are grounded are extremely interesting, and one discovery by Fritsch and Hitzig possesses a great degree of interest, and deserves more than ordinary attention.

It was believed that the brain substance, at least in the central portion, was not excitable by any of the means of irritation that we possess, galvanism, mechanical irritation, such as tearing up or pricking the nerve tissue, chemical irritants, such as the mineral acids, etc., and thermic irritants, such as the hot iron. As you well know, when we apply such irritation on a nerve or the spinal cord, or on the base of the brain, we may produce reflex or direct movements if the part irritated is a motor part. No doubt if we found that any of these agents, by irritation of a central part of the brain, would always produce the same kind of movement, it would be established that that part of the brain is excito-motor or has a direct power of producing that certain movement. This, however, is not so. The only agent that will produce such an effect is galvanism. Therefore there is a radical difference between these and other parts of the brain, and as you well know, galvanism can have a diffuse effect whenever it is applied. Its effects

may certainly be propagated from the point to which it is applied to other parts at a distance. This is a way of explaining the effects observed when these portions of the brain are excited by galvanic irritation, if you refuse to admit that they are centers presiding over voluntary motions.

Again, experiments have been made to show that galvanism applied to the convolutions is propagated and that the movements which take place under this irritation only occur sometimes and not always. There is no doubt—from the labors of certain friends and pupils of mine, led in a measure by myself, although I was mistaken—there is no doubt, that local galvanization of the convolutions may be followed by certain muscular movements, but this is no proof whatever that the part thus acted upon is a psycho-motor center.

To use an old illustration, if we tickle the sole of the foot, we may produce certain muscular movements of the face that we call laughter, but we certainly do not look upon the sole of the foot as the psycho-motor center for these movements. The same reasoning applies with full force when we consider the movements produced by irritating the convolutions of the brain. There is no reason to conclude that the irritation acts directly on a motor organ. A motor center may have been excited, but it has been through a propagated influence, and a reflex action is the consequence. It is, I repeat, the same thing as occurs when we tickle the sole of the foot.

This view is certainly more in harmony with the facts than the one generally admitted. If it were the case that a motor organ is excited by the irritation, all irritants as well as galvanism should produce the same effect. Moreover, if these parts were taken away, we should get paralysis of those muscles that act in causing the contraction, and this paralysis would be persistent. In animals, when these parts are taken away, an appearance of paralysis will come on, but when we investigate this, we find that the apparent paralysis is similar to the general paralysis of the insane, in which the convolutions are inflamed and there is irritation of other parts of the brain tissue. It is simply a disorder in the action of the will power, and not paralysis that is present in these cases. When these parts are taken away and such results are seen to follow, it would show, if it led to any conclusion, not that they preside over the voluntary motor actions, but that they serve to maintain the equilibrium.

The second conclusion, however, that the convolutions maintain the equilibrium of the body is not true. If, instead of taking away the pretended psycho-motor center alone, we remove a great deal more of the tissue, we ought to have, certainly, no power of producing these movements left. There may be no paralysis. There ought to be a greater paralysis, but in many cases there is not only no paralysis at all, but not even the appearance of it. If you only take a part of the organ away you will have more disorder of movements than when you remove the whole of it. The effects that are seen then can only be the effects of irritation.

Longet found in one case, that after producing apparent paralysis on one side of the body, by taking away the so-called psycho-motor centers, when he took away the corresponding centers on the other side of the brain, the paralysis produced by the first operation disappeared. He should unquestionably, if the theories were true, have found a second paralysis on the opposite side, and no change whatever in the side that was first paralyzed. This is decisive in showing that an irritation is produced in another part of the nervous system by the first injury. By the second operation you produce cessation of the apparent results of the first.

Professor Bayer, of Paris, experimented on a chameleon by removing the brain on one side, and the result was paralysis of the other side of the body. He then took away the other half of the brain, and instead of producing the same condition on the sound side of the body, the paralysis that appeared from the first removal disappeared. In this case one half of the brain had been removed, and the paralysis produced appeared to be due to the fact that the voluntary motor centers had been taken away, and the second operation, removal of the remaining half of the brain, instead of being followed by a second paralysis of the other half of the body, was followed by the cure of the the animal of the first paralysis, that produced by the removal of the first half of the brain. This is a mode of treatment, however, that I should not advise in the human subject.

From the facts that I have related, it follows that there is no reason to conclude that paralysis depends on the loss of an organ employed by the will power. The reality is, that when paralysis appears, it is due to an irritation which starts from the place in which the disease is situated, and from that point spreads its influence to many others in the cerebro-spinal system, and causes, by an inhibitory influence, a cessation of the activity of those cells to which it has spread, and thereby produces paralysis. The results of all the experiments with galvanism tend likewise to show that paralysis may be produced by irritation in this way.

Bouchfontain found that the application of galvanic stimulus to the dura mater, or even simple gentle friction with the nail, according to where it was applied, could produce a movement of either the arm or leg. From this fact are we to place the center of will power for movement of the leg or arm in the dura mater?

Even those persons who believe in the existence of the psycho-motor centers admit that paralysis, apparently due to their removal, disappears after a time. It is, therefore, plain that in these cases we have to deal with something else besides the ablation of an organ.

A great effort has been made by Prof. Charcot to show that certain conclusions, as regards the motor centers, must necessarily be drawn from clinical facts. He has shown that certain parts of the convolutions of the brain have more power in producing paralysis than others. There is no doubt that certain parts around the fissure of Rolando, when they are subject to disease, will give rise to paralysis more



frequently than when the disease is in other parts of the convolutions; but if you examine the facts, you will find but very few which are in harmony with the admitted theory.

According to these observers the anterior convolutions contain centers that move the tongue and lips, and those in front of and behind the fissure of Rolando serve chiefly for the movements of the arm and leg. These parts and some others, that it is not necessary to mention more particularly, along the central fissure of the brain, are the so-called psycho-motor centers.

We find many cases in which disease has destroyed these parts without the production of any marked paralysis. These facts are certainly quite sufficient to show that the conclusions are wrong.

If you examine the facts seemingly in harmony with the theory, you will find in many cases where the disease has occupied only small parts, that there still may be complete hemiplegia. In other cases we find that the face is paralyzed together with the arm when the lesion is situated in that part of the brain considered to be the motor center for the leg. Indeed, the discrepancies between the cases and the conclusions of physiologists from their experiments are decisive against the theory.

Is it possible, however, to diagnosticate a disease existing in the convolutions of the brain, even when the disease is elsewhere than in the psychomotor centers so-called? Sometimes it is so. Disease somewhere else may produce paralysis of the same kind, but we must endeavor to look as carefully as possible for the seat of the disease, as the means of treatment vary according to the location of the lesion.

If the disease is in the convolutions together with paralysis, there is a likelihood that convulsions will occur. Convulsions occur more frequently when the disease is in the convolutions than when it is in any other part of the brain. So much so, that Dr. Wilkes, of Guy's Hospital, thought that epilepsy was due to disease in the cerebral convolutions, and I made an equal mistake when I considered that it depended always on disease of the membranes outside or inside of the ventricles. There were a great many facts in favor of my view, but also a great many against it. However, in many cases where the disease is situated in the convolutions, it is likely that we will have convulsions with the paralysis. So then, when we have convulsions present in such cases, we may suspect that the disease is in the convolutions, and examine carefully for further evidence.

With disease here, it is frequent to find disorder in movements, if movement remains. Nearly always there is not simply loss of voluntary action but also disorder of movement. Then, besides, the paralysis is usually much less in extent than in disease in other parts of the brain, and the paralysis is chiefly marked in the arm.

Again, the convolutions of the brain are employed in the exercise of the noblest faculties of the mind, and, therefore, there will be some disorder in the higher faculties when they are the seat of the disease. If the lesion is on the left side of the brain, whether or not it be in

the third convolution, there will be great difficulty for the patient to find the proper words by which to express himself. Amnesia is frequent, and very frequently there will be complete loss of power of expressing ideas by speech. So that there are a number of symptoms that may lead us to localize the lesion with considerable accuracy.

Other features are interesting. There is frequently contracture of one limb, oftenest of the arm. If the disease has existed for any length of time, as from a tumor, this is more likely to occur. It is very frequent to find this rigidity in the limbs, especially in the arm.

Prof. Charcot tried to explain this, on the ground of secondary degeneration. That portion of the convolutions in front of the fissure of Rolando is the part, disease in which chiefly produces the rigidity. Charcot showed that the secondary degeneration extends from this situation to the pons Varolii, the medulla oblongata and the spinal cord.

The convolutions of the brain have also peculiar features that may help up us in making a diagnosis. My friend and former assistant, Dr. J. Hughlings Jackson, was the first to clearly show the features that usually belong to these cases. If epilepsy or convulsions appear as the result of the disease in the convolutions, the arm especially, but sometimes the leg, will be seized by a cramp before the attack. Sometimes with these attacks there are peculiar sensations, as formication, or burning or pricking sensations, and for a while the symptoms are localized in one limb only.

These features are not absolutely peculiar to disease in these parts, but certainly belong far more frequently to lesions here than to lesions in other parts of the brain.

I cannot review all the symptoms which will lead us to the diagnosis of the lesions that produce paralysis, but I will now repeat in as few words as possible the reasons that lead us to localize the disease.

If you find paralysis in the limbs, with paralysis of the face on the opposite side, you may look to the pons Varolii as probably being the seat of the lesion.

If you find paralysis with hemiopia, there is likelihood that the disease is in the tubercula quadrigemina.

If you find paralysis coexisting with complete loss of action of the third pair of nerves, and paralysis of the limbs on the opposite side of the body, then the disease is probably in one of the crura cerebri. These are the most important features.

I now pass to another point,—the study of convulsions in connection with brain disease. Convulsions, as you know, may appear without epilepsy. They are certainly distinct from epilepsy proper. What essentially characterizes epilepsy is loss of consciousness. There is, indeed, no need for convulsions to be present in attacks of epilepsy. In the *petit mal* of the French or epilepsy *mitior* of the English there is no necessity of convulsions or rigidity of any muscles

in the body. There may be a simple loss of consciousness from many causes, but for epilepsy there must be a few such attacks, as loss of consciousness itself cannot constitute epilepsy. When loss of consciousness occurs from arrest of the heart we have syncope, but when the heart continues to beat, and there have been a number of attacks of loss of consciousness, then we have epilepsy. But I have seen very few cases in my experience in which there were not convulsive movements of some muscles, especially of some of the muscles of the face or neck. There may be such cases, but epilepsy is usually characterized by two series of manifestations, loss of consciousness, and two kinds of convulsions. The first is rigidity or tonic spasms, almost always coming at the commencement, and second, the other series of movements or clonic convulsions. These usually exist in succession, the tonic convulsions preceding the clonic. These varieties occurring in succession, in repeated attacks, with loss of consciousness, constitute complete epilepsy.

In brain disease very frequently you have not to deal with epilepsy proper. Convulsions very frequently occur without loss of consciousness in such cases.

Other symptoms characterize convulsions dependent on brain disease, as compared with those occurring in idiopathic epilepsy. In the latter case the convulsions are almost always alike on both sides of the body. In convulsions dependent on brain disease they are very rarely alike on both sides. The head is drawn to one side, and the eyes are moved to one side, and there is a difference in the limbs on the two sides.

Another feature is, that one side of the body alone is frequently attacked with convulsions in disease of the brain, but in epilepsy this is never the case. Convulsions, then, occurring on one side of the body, lead to the suspicion that disease of the brain is the cause, especially when the convulsions are limited to one limb, as the arm or the leg.

In cases of convulsions due to brain disease, what was called by Galen and other physicians of his time an *aura*, will occur. Another feature of epilepsy due to brain disease is its curability. I may surprise many practitioners in this room when I say that epilepsy proper, or simple convulsions due to brain disease, generally can be cured, while on the other hand, hardly one case in a hundred of idiopathic epilepsy can be cured. So you see that there is a radical difference. It seems strange that in such cases that seem to be the more aggravated conditions our means of cure are more certain.

When epilepsy depends on disease in special parts of the brain, as in the base, our means of treatment may cure the case rapidly; that is, we can prevent the manifestations of the disease in its commencement, and by so doing we can cure it in time. The patient may have subsequent attacks within two years, but each attack may be averted, so that he is completely cured only after some time; though, as I said, the manifestations are prevented.



There is no doubt that epilepsy from brain disease depends simply on an irritation of certain parts of the brain, on which our means of treatment exert a powerful and controlling influence. It may be that before a very long time has elapsed we shall have the same great power over paralysis as we now exert over convulsions, as, according to the theory I have set forth, it is only a manifestation of irritation, in the same way as convulsions.

An irritation starts from a certain point and produces an inhibitory effect, a cessation of activity on cells at a distance, and paralysis results. If the irritation goes to cells that are able to produce reflex action, instead of to simple motor cells, another irritation is produced and convulsions occur. It is essentially the same cause in both cases. An irritation starts from a certain point, is propagated to distant parts, and produces paralysis or convulsions, according to the properties of the part on which it acts. If we can cure convulsions dependent on brain disease, we may find means to cure paralysis as well, for they are both dependent on the same cause. What has already been discovered as regards anaesthesia is most important as regards our being able to cure paralysis.

I now pass to the study of certain features that present themselves with convulsions, due to disease in the brain. These are the *aura* or warning symptoms that precede the attack and the loss of consciousness.

First, as regards the *aura*. I wish every one would study with great care every case of epilepsy to see whether or not this exists. It is true that it is very difficult for a busy practitioner to examine every part of the entire surface of a patient's body, but not to do it is a lack of employment of our knowledge, and we do not do our whole duty to our patient if we neglect it. I know that I myself have been guilty of such neglect. I will state the facts that have led me to these remarks. I have found that irritation of certain parts of the body in epileptics will often, and in some cases always, produce an attack of the disease. I have not dared in many cases to produce an attack by such means, but in a few I have. I never wish intentionally to produce an attack, but it is important in some cases to ascertain whether we have to deal with epilepsy due to organic disease of the brain, or to some other cause. In this way we bring the attack to be like those that are preceded by an *aura* appreciable to the patient. If there be an *aura*, and the place where it starts from is determined, then the application of a variety of means of counter-irritation has a great power of curing the attack. So, if you produce an attack of convulsions in this way, the patient is well repaid, as counter-irritation applied to the part may produce a cure of his disease. This spot may be situated in any part of the body so that an irritation applied to the back of the head, or neck, under the ear, or under the jaw, at the level of the origin of the vaso-motor nerves, the first or second dorsal nerves, the knees or other parts of the limbs, in some cases the breast and so on, may be the means of curing the

epileptic seizures. Abercrombie and Bright had cases like these. Reeves Clark had a most important case in which a touch on the breast produced an attack. In these cases counter-irritation applied to these points may effect a cure.

The *aura* may vary greatly. It may consist in a peculiar movement or in a sensation; the movement may occur anywhere in the body. I had a case in London in which there was such a violent contraction of the bladder that the urine was forced out with great rapidity. This occurred two or three hours before the attack. Any muscle in the body may contract in this way. The organs of the abdomen or chest may be affected in like manner. Any muscle of the limbs or trunk may contract in the same way as did the muscles of my patient's bladder. As you well know, there are muscular fibres surrounding the blood vessels. On this account you will get a pallor of the part in which the contraction occurs. It may be in the face or elsewhere. There is likewise a diminution of the temperature of the part.

There is, therefore, a kind of *aura* which consists in muscular contractions in various parts of the body. The bronchi, the diaphragm, the intestines, in fact any part may be subject to this contraction. The important point, for the sake of applying means of treatment, is to determine whether such a place exists, and if it is a constant place, and if the *aura* frequently occurs there previous to an attack. If such a place can be found, you have a great chance of doing a good deal for the patient by applying means of counter-irritation.

Another kind of *aura* is one of sensation. It is variable, but it generally consists of an indefinable sensation. The patient cannot tell what it is like. Its peculiarity is that it is like itself and nothing else; in fact, it cannot be accurately described. It belongs only to that peculiar state. Some physicians think that the term *aura* should be limited to this peculiar sensation, but the term should apply to everything that takes place before the beginning of the actual attack. In those cases in which the *aura* appears long before the attack we have great chances of staying it off.

I pass now to the consideration of loss of consciousness. In 1857, in this country, in a work on epilepsy, I tried to show what is now admitted by physiologists and physicians, that the loss of consciousness is the result of the contraction of the blood vessels in the cerebral lobes. I am sorry indeed that my ideas were followed, for I now believe that it is only partly true, if true at all. I am quite certain that the blood vessels contract, for I have seen it many times, and the fact is beyond dispute, but just as in the case of sleep, as shown by Dr. Hammond, the contraction is not essential. To say a few words about sleep, the contraction of the blood vessels is so little essential to that phenomenon, that in animals in whom both sympathetics have been divided, and where there can be no contraction, but on the contrary a state of congestion exists, sleep takes place just as well as if the blood vessels of the brain were contracted.

It is clear, therefore, that contraction of the blood vessels of the brain is only something that takes place during sleep, and is not the cause of sleep. So that a remedy that produces contraction, given in order to produce sleep, is wrong. The contraction of the blood vessels is not essential; it may be accidental.

I will consider in the next lecture the cause of loss of consciousness in epileptic attacks.

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## CLINICAL LECTURE.

Delivered at the Hospital of the University of Pennsylvania

BY

WM. GOODELL, A.M., M.D.,

Professor of Clinical Gynecology.

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### I. CONICAL CERVIX. II. DYSMENORRHOEA. III. DIAGNOSIS OF OVARIAN CYSTS.

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#### CONICAL CERVIX.

This woman has been married a year and a half and has not yet conceived. There is evidently a fault somewhere. The most frequent causes of sterility are: 1 extreme ante flexion and 2 what is known as a conical cervix. Let us see what is the matter here. The patient tells me that previous to her marriage she was perfectly well, but that since that time she has had a good deal of uterine trouble, as shown by painful micturition, difficulty and pain in her sexual relations and great dysmenorrhœa. Upon examination, I find the cervix to be very small, not any larger, in fact, than the tip of my little finger. I also find that it projects fully three quarters of an inch into the vagina. The external os of the cervix is also unusually small; a pin-hole os. The womb is slightly prolapsed. It is very easy to see what has been the cause of the pain experienced during copulation, for 1 the distance from the fourchette to the cervix uteri is only an inch and a half; and 2 the vaginal walls are tense and inelastic. The patient, furthermore, tells me that there has been copious leucorrhœa since her marriage.

I have inserted the speculum. You see how much difficulty I have in expanding the blades. Indeed, were I to set to work roughly, I might tear the vagina. Let me give you a piece of information while I am slowly opening these blades. All the anterior portions of the sexual organs are exceedingly sensitive, while inside of the vagina the parts are so insensitive, that even the application of pure nitric acid to the cervix or womb, gives but little pain. The os of the cervix is, as I told you, very small, but still I can get the sound in without much difficulty. The womb is of the normal length, but is slightly ante flexed. How do I account for the dysmenorrhœa? There is a good deal of endometritis here; the lining membrane of the womb is so thickened that it has, to a great extent, occluded the abnormally small cervical canal at the time of the menses.



It is necessary to the mental and physical happiness of a woman that she should have children. Unless a woman conceive within a year or so after marriage she is very likely to have obscure neuralgic pains and severe uterine disorders. This being the case, we must try and place our patient in a position in which conception will be possible. How shall I bring about this desired result? There are two methods: (1) by gentle dilatation of the cervical canal, or (2) by weekly applications to the lining membrane of the womb and cervix. I think I will first try gentle dilatation. The os is entirely too small. I am not going to give ether, because its use would destroy, to a large extent, the good effects of the dilatation. The operation is a painful one, and so I must work very gently. While I have been talking to you I have expanded the blades fully one-third of an inch. The canal is now large enough for me to pass in a piece of cotton. As I intend to employ both of the methods of treatment above-mentioned in this case, I will ask the woman to come here every week regularly and have an application made to the womb of saturated tincture of iodine. There has been but very slight bleeding, as you see.

You will come across such cases as these very frequently in your practice. In some instances you may have to put your patients under ether and dilate the os forcibly. Why did this trouble grow worse after marriage? or, rather, first let us ask why was the woman sterile? In intercourse the male organ pushed the cervix to one side, and so the semen did not find its way into the opening. Even if this had not occurred, the angulation would completely occlude the canal so far as the passage of semen was concerned. Why does sterility produce uterine disease, you will now ask? Pregnancy and lactation call a temporary halt in the progress of constant sexual excitement, but when conception does not take place, the sexual excitement goes on and the congestion becomes greater and greater. This congestion, when the time of the menses approaches, increases the flow, and also increases the secretions of the womb. The blood and secretions are retained, the womb swells, endometritis, perhaps hyperplasia, takes place, and the cervix and womb become so sensitive that the woman cannot tolerate the marital approaches, or at least cannot complete the act as soon as the husband. Thus the excitement on her part is kept up without the succeeding relaxation. You will very often have newly-married husbands come to you and tell you that they constantly find themselves completing the act of copulation before their wives. Very many women know so little of such matters that it takes them a long while to be educated up to the point of reciprocity with the male. This state of affairs may be due to perfect purity, or an entire apathy in such matters. Where it is due to apathy there is not so much danger, for in that case there is little or no congestion of the parts. Otherwise, *i. e.*, where the husband completes the act first, it is very hard to know what treatment to pursue. I think the best plan is to order the husband to sleep in a separate bed, so as to remove the temptation to too frequent approaches. Abroad, married

persons always sleep in separate beds. Very few men will be reasonable if allowed to sleep with their wives under such circumstances. I am inclined to think that very many cases of severe uterine disease date from the honeymoon, the time when young couples go away from home for this very purpose. But too often both parties are permanently injured by the excesses indulged in during these first few weeks spent away from home, and entirely given up to pleasure seeking of all kinds in general, and particularly of one.

#### DYSMENORRHOEA.

A celebrated Western gynæcologist spoke to me at Boston last summer of a new method which he had employed for treating dysmenorrhœa. He said he took pieces of the bark of slippery elm, and whittled them to the size of matches, then tied a string to each and packed the cervical canal with them. It struck me at the time as an excellent plan, and I determined to employ it in the first case of dysmenorrhœa in hospital practice that fell to me after I returned. That case happened to be the one I now bring before you. I put the slips in three times. After removing them the third time the woman had a severe attack of peritonitis. I will not despair of the remedy because it failed me once, but I will not try it again in this case.

You must always be very tender in examining the womb and cervix of a patient who has lately had pelvic peritonitis. Never make any irritative applications to the womb in such a case. I am going to insert my finger here and move the womb about very gently to see if any pain or plastic adhesions remain. This woman, since the attack of peritonitis, has experienced a great deal of pain in passing her water. However, the angulation of the canal would explain this. There has also been a good deal of leucorrhœa. I intend to pass a sound very gently. It stops at the internal os. Now, it would be very bad surgery in such a case as this to go on and dilate after giving ether. There is not much pain at the os externum, and it is quite roomy; so the slippery elm did some good after all.

What will be my treatment? I will tell this woman when she goes home to put one drachm of chlorate of potassium in a gallon of water and to syringe her vagina out well with this solution. She had better use a fountain reservoir or something of the sort for this purpose. The water must be so warm that she can just put her elbow in it—from  $110^{\circ}$  to  $120^{\circ}$ . The reservoir ought to be put on the mantle-piece, and the water finds its way into the vagina through a length of rubber tubing. We are indebted to Dr. Emmet of New York for this suggestion. I would like the patient to try this daily for a month's time, and then to return to us and report progress. Among other things, walnut leaf tea is a very excellent vaginal application in these cases.

When the patient returns at the end of the month, how shall I treat her? I shall make an application of carbolic acid to the fundus of the uterus. I shall then introduce an Elliot's repositor, and turn the

handle of the instrument. The womb will thus be carried in the same plane into a position of retroflexion. When you use an Elliot's repositor you must work very slowly, or you will cause the patient a great deal of needless pain. Do not introduce this instrument oftener than once every four days, or every week. If you persevere patiently you will finally succeed completely in reducing the displacement.

Before letting the woman go away to-day I am going to introduce a pessary. I do not believe in beginning with a ring pessary in such a case. Of all pessaries the ring pessary is the most liable to do harm. Another point: Do not put in too large a pessary when treating cases like this. If the pessary be too large it may ulcerate into the walls of the vagina, and become so firmly fixed there that it will have to be cut out. I have had several cases where the pessary rested in a grooved ulcer and the skin had united over the rim. When such an accident happens, the best thing, perhaps, that you can do is to get a pair of bone forceps and cut up the pessary in pieces, and so remove it from its bed.

The best pessary for this case is a Hodge, or Smith's modification. Be sure to impress upon the patient if at any time she finds herself unable to remove the pessary, that she send at once for a physician.

#### THE DIAGNOSIS OF OVARIAN CYSTS.

The patient is married, but sterile. You notice the very marked swelling on the left side of the abdomen. The patient first noticed this enlargement during an attack of dysentery. Since that time the tumour has constantly increased in size. After a careful examination I have diagnosed this tumor to be a cystic degeneration of the ovary. As I find that the womb is pushed over to the right, I should say the left ovary was diseased.

What is an ovarian cyst? The ovaries, as you know, produce the Graafian follicle, which is a little cyst. Some say that one of these follicles enlarges, degenerates, and so forms a cyst. This would account for the origin of a unilocular cyst. When the cyst is multilocular it is supposed that several of the follicles become cystic, that some one overlaps and includes the others, which thus form children cysts. Other physicians and pathologists hold that the substance proper of the ovary degenerates and becomes cystic. I think that the first theory is the more plausible of the two.

A cyst of the ovary very rarely occurs after menstrual life. It is very likely, however, to affect women who are sterile. There are three kinds of ovarian cysts, the monocyst, the oligocyst, and the polycyst.

Ovarian cyst is to be distinguished from dropsy in the following manner: In a case of ascites, the abdomen, when the patient is placed on her back, is flat on top and bulges out at the sides. Here there is a projection on top and not so much bulging out at the sides. In ascites, the intestines float up to the top, and we get resonance



upon percussion. Here percussion, both superficial and deep, reveals only flatness. In cases of ascites, when the fluid is allowed to settle, there is usually resonance on the top of the abdomen, and dense flatness at the sides. Here there is quite appreciable resonance on the sides.

Examination of the external genitals, vagina, womb and breasts, which have withered, excludes the possibility of pregnancy.

There is one most certain way of settling the question, and that is by means of the aspirator. The fluid of ascites is straw-colored and limpid; that of a monocyst is perfectly clear and limpid, like spring water; that of a polycyst is thick, dark and turbid, from disintegrated red blood corpuscles; that of an oligocyst, which I suspect this to be, is usually of a milk and water, or of a light brown color. I should not think of tapping a polycyst unless I were ready to proceed at once to operate. The fluid is so intensely acrid and irritating that the escape of a few drops into the peritoneal cavity might set up a violent peritonitis, and rapidly destroy life.

I make the puncture in this case in the linea alba, half way between the umbilicus and the symphysis pubis. The fluid here is, you see, of a medium brown color. I shall send a part of this liquid to Professor Tyson for microscopic examination, and if he finds any of the Drysdale ovarian cells in it, I shall be confident that we have here an oligocyst.

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## ORIGINAL ARTICLES.

### PULVIS ARSENICOSUS ASIATICUS.

BY

HENRY G. PIFFARD, M.D.,

Professor of Dermatology in the University Medical College, New York.

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### PULVIS ARSENICOSUS ASIATICUS.

The well known "Asiatic pills," composed of arsenious acid and black pepper, enjoy a high repute in Europe in the treatment of certain cutaneous and malarial affections. They are occasionally employed in this country, but not so frequently as abroad. Personally I have found them, as obtained on prescriptions, very uncertain. The cause of this was not clear until I found that there were in use several different formulas for their preparation.

Cazenave gives the following:

R	Of arsenious acid.	gr. lv
	Of black pepper in powder,	3 ix
M.	and make 800 pills,	

The French Pharmacopœia directs that they shall be made as follows:

## " PILULE ASIATIQUES.

	Grammes.
R Acide Arsénieux porphyrisé,	0.50
Poivre noir en poudre très-fine,	5.00
Gomme Arabique pulvérisée,	1.00
Eau distillée,	q. s.

Mettez l'acide arsénieux dans une mortier de porcelaine; ajoutez-y peu à peu, en triturant longtemps et avec précaution, le poivre et la gomme, de manière à obtenir un mélange très-intime. Ajoutez la quantité d'eau nécessaire pour former une masse de consistance convenable: Divisez la masse en cent pilules, dont chacune contient. 0 gr. .005 d'acide arsénieux."

In Germany the Asiatic pill is not officinal, but is prepared according to formulas differing from the foregoing. Lastly, I have been informed that many of the Asiatic pills sold in this country contain no arsenic at all. Under these circumstances it is not surprising that they have fallen into disuse. Believing, however, that the combination is "too good to be lost." I have had the following prepared:

## PULV. ARSEN. ASIAT.

R.	
	Acidi arseniosi, 2 parts.
	Pulv. pip. nig., 20 "
	Sacch. lactis, 78 "

## M. Tere bene secundum artem.

To obtain a good preparation it is essential that the mixed powders should be very thoroughly triturated, as directed in the French Pharmacopœia, and it is specially requisite that the arsenic should be equally diffused throughout the mass. To accomplish this successfully, one-third of the sugar should be mixed with the arsenic, rubbed and mixed for at least twenty minutes; a second third of the sugar should then be added and manipulated for twenty minutes more; afterward the rest of the sugar and the pepper should be added and rubbed with the rest for an additional twenty minutes.

The powder thus made, according to the formulas given, can afterward be made into pills, compressed or not, of any desired size, or it may be dispensed in the form of powder. In the latter case it cannot be comfortably taken, either dry on the tongue or in water, on account of the hotness of the pepper. To remedy this, however, I have sometimes directed patients to keep their powders in the dining-room, and at each meal to put the dose upon their plate and to use the "medicated pepper" in the same manner as they would the ordinary non-medicated condiment. This powder is kept on hand and compressed by F. A. Reichardt, 404 Fourth Avenue, New York.

## TRANSLATIONS.

REMARKS ON GONORRHOEAL ARTICULAR  
RHEUMATISM,

Delivered at the Hôpital La Charité,

BY

M. HARDY.

(Gazette des Hôpitaux.)

We have at present in our service in the hospital a man of thirty-two years of age, a cook, who has had a number of attacks of gonorrhœa, one of these during the last year. It presented this peculiarity, that in the course of the disease, and even at the commencement, it was accompanied by a painful swelling of the two knees, which, after having persisted for several weeks disappeared without leaving any traces.

Four months ago, this man having contracted a new gonorrhœa, he was taken, as in the previous instance, about fifteen days after the commencement of the running, with intense pains, having for their seat the tibio-tarsal and metatarsal articulations of the two feet. These pains were so severe, that for two months, the patient was not able to walk. After that they disappeared, and the discharge, which during their manifestation was suppressed, then commenced afresh. From that time the man was able to perform his duties, but at the end of eight or ten days, whether through improper hard work and fatigue, or from the influence of being chilled, the pains re-appeared in the articulations and compelled him to enter the hospital.

At our visit we discovered the following state: The patient is pale, markedly anæmic, and shows a slightly cachectic hue. In the feet, and particularly in the left foot, the tibio-tarsal and meta-tarsal articulations are the seat of a very marked swelling; they are, moreover, extremely painful, both when he remains quiet and when he walks, but worse when he walks. There is no febrile movement of any account, the pulse is normal, the digestive functions are entirely natural; no cough; indeed, nothing appreciable in the different organs except a very slight proportion of albumen in the urine.

From the presence of these signs and symptoms, it is evident that we have to deal with that variety of arthritis which has been designated by the name of gonorrhœal rheumatism. But, aside from this affection, there exists another which is indicated by the presence of albumen in the urine, as well as by the pallor and profound anæmia of which this man bears the marks. This affection is no other than a nephritis, which, and above all parenchymatous nephritis, is, indeed, a sufficiently frequent complication of gonorrhœa. It results from the propagation to the kidney of the inflammation that is seated in the urethra.



The treatment on which we have placed this patient consists simply in the administration of the salicylate of soda, so much praised at the present time for the treatment of articular pains. During the last forty-eight hours, he has taken each day, in one portion, six grammes (a drachm and a half) of this substance. Since then the swelling has decreased, the pains during rest are less severe than before, but those that occur when he walks are just as aggravated. In fine, the slight ameliorations that we have obtained seem to be more the consequence of the rest than of medication, and the salicylate of soda does not seem to give, in gonorrhœal rheumatism, the improvements which we have obtained from this substance in the treatment of true articular rheumatism, inflammatory in character and generalized.

It was not so very long ago that the attention of physicians was called, for the first time, to gonorrhœal rheumatism. It was, indeed, only at the end of the last century, in 1781, that the relation that exists between certain articular pains and gonorrhœa was remarked upon. Hunter, at first, later Ricord, Rollet, and Fournier were those who contributed the most to make the affection a particular nosological entity.

Gonorrhœal rheumatism, like articular rheumatism, is particularly characterized by pains, sometimes very slight and occurring only during walking, at others extremely severe and persisting, even during repose. The articulations attacked by gonorrhœal rheumatism are, moreover, the seat of swelling, and often present an enormous effusion that may sometimes simulate a true hydrarthrosis.

As regards the erythematous redness so evident sometimes in acute articular rheumatism over with the diseased joints, it is rare in the variety that now occupies our attention.

Gonorrhœal rheumatism seems to have a marked predilection for the large articulations, and notably for the knee. Following, in order of frequency are the articulations of the wrist, the foot, the shoulder, the fingers and the toes, and the tarsal and metatarsal.

But it is not always limited to the articulations. It is for this very reason that I prefer to call it rheumatism rather than arthritis, as certain authors have proposed. Sometimes, indeed, it is in the sheath of the tendons that it develops itself, as those of the wrist, for example, or the foot; again it may be in the tendo Achillis or the tendon of the patella.

At other times it is in the tendinous bursæ, more rarely in the sciatic nerve (Fournier, sometimes on one side, sometimes on the other, and even in the two at the same time.

At the same time that the disease occupies the different parts of the body, we frequently see divers accidents happen to the eye, such as intense conjunctivitis with purulent secretion, or even a keratitis with accompanying iritis; analogous phenomena to those that are observed in this organ in the course of ordinary rheumatism.

The number of articulations affected by gonorrhœal rheumatism is very different from the number involved in febrile rheumatism. So

much so, indeed, that the latter has a very great tendency to attack many articulations, sometimes even all the joints in the body, while it is rare to see the variety we are now studying occupy more than one, two, or, perhaps, three or four articulations; it is rarer still to see these taken one after another, as is the rule in the former disease.

Gonorrhœal rheumatism is, in general, apyretic, and in this again it differs from the preceding kind, so that if, at the commencement, under some circumstances, we observe a slight febrile movement, it is always very moderate and does not last longer than two or three days.

In the same way, contrary to what is seen in acute articular rheumatism, the increase in perspiration amounts to nothing, or very nearly so. Finally the urine does not exhibit any of those alterations that characterize ordinary rheumatic cases; it is neither frothy, nor cloudy, nor turbid. In ordinary rheumatism, as is well known, the urine is always characterized by the presence in larger proportion than customary, of the urates, uric acid, and urea. Finally, gonorrhœal arthritis is not complicated as is acute articular rheumatism with cardiac affections, so frequent, on the contrary, in the inflammatory form.

Relatively to its termination we find, in the same way, in the disease which is made the subject of this lecture, something peculiar. Indeed, after having lasted several weeks, or several months, cure is ordinarily the rule; but it may also happen that the articulation, although deserted by the disease, remains painful; sometimes even it occurs that it may be the point of departure for a true hydrarthrosis, or even a white swelling, which will terminate in ankylosis. Ankylosis, moreover, may become established without this last complication.

As regards its etiology, we shall say that in order to have gonorrhœal rheumatism we must have, as an essential condition, the existence of gonorrhœa; but this does not suffice; it is yet requisite, in order to be affected, that the subject should have a special disposition, which is not, as some have wished to establish, a certain tendency to the rheumatic diathesis. Ask, indeed, those patients who cannot have gonorrhœa without immediately seeing one or more of their articulations become the seat of the phenomena with which I have made you acquainted, and they will invariably reply to you, that except with gonorrhœa their joints are always perfectly free, and that they are not the subjects, after catching cold, to contract muscular or articular pains.

We do not know anything positive relative to the epoch at which gonorrhœal rheumatism appears. All that we can say is that sometimes it appears at the commencement of the urethral affection, and sometimes only one, two, three or four days after the first symptoms of the disease. There is the same uncertainty about the influence which the gonorrhœa exerts on the intensity of the articular pains. It has been asserted, it is true, that those cases are the most severe in which the discharge is the most abundant, but they are just as bad in acute or sub-acute gonorrhœa as in that which is characterized by only a slight discharge.

At the time of the appearance of the articular phenomena, it is not rare to see the gonorrhœa arrested at once, to become aggravated again after the cure of the rheumatism. It seems as if there were a true metastasis, like a transportation of the morbid materials from one place to the other. This phenomenon is far from being constant, but it is quite ordinary to observe that, with the arrival of the rheumatism, there is a certain diminution of the discharge.

In view of these considerations the disease requires a treatment altogether special. Indeed, gonorrhœal rheumatism being a local affection altogether, and not accompanied by general phenomena, we may conceive that measures which have a purely local action should alone be used in the treatment of this affection. We should, therefore, at the commencement, have recourse to applications to the diseased parts, leeches, wet cups, cataplasms, and if the disease has a tendency to continue, we may employ blisters. Finally, later on, if the gonorrhœal rheumatism has a tendency to take a chronic course, we will find employment of baths, of douches, of thermal mineral waters, salines or alkalines, of some slight value; in a word, the different methods by means of which we combat chronic rheumatism.

F. A. L.

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## PERISCOPE.

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NEWTON M. SHAFFER, M.D.

#### *Practical Medicine:*

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## WRY NECK OF INFANTILE ORIGIN IN THE ADULT.

BY

MR. F. R. FISHER.

(*The Lancet*, October 27, 1877.)

A young woman, aged 21, came under Mr. Fisher's care in the National Orthopædic Hospital, whose history included a spastic contraction of the sternocleido mastoid muscle on the left side. At birth no deformity was noticed, but between six weeks and nine months severe convulsive fits occurred. At this latter period the head was observed to be slightly out of the straight line, and though surgical opinions were obtained at that time, and later, at 8 years, nothing was advised. At 20, instrumental treatment was commenced, and continued for 10 months without relief. When she applied at the hospital the left sterno mastoid was very rigid and strongly contracted;



the right much atrophied. On measurement the left mastoid process was  $3\frac{1}{4}$  inches from the left sterno-clavicular joint, the distance between the corresponding points on the right side was  $6\frac{1}{4}$ . The left side of the face was smaller than the right, and by contrast appeared wasted. The left features were dragged down below the level of the corresponding ones on the opposite side of the face; the upper jaw rotated to the right and pushed forwards, and the upper and lower incisors could not be brought into apposition. There was severe rotatory curvature of the spine in the cervical region, with a long compensatory curve in the dorsal, and a shorter one in the lumbar region.

On July 13th Mr. Fisher divided the left sternocleido-mastoid muscle, placed the patient in bed for one week, and then commenced the mechanical treatment, using Mr. William Adams' instrument. At the end of five months there was a scarcely appreciable difference between the measurements on the right and left sides. The position of the head was most satisfactory.

A few months subsequently great improvement was noticed in the distortion of the face, the obliquity of the features, the approximation of the lower and upper incisors, the position of the lower jaw, and in the spinal curvature.

N. M. S.

# THE HOSPITAL GAZETTE

AND

## ARCHIVES OF CLINICAL SURGERY.

A WEEKLY JOURNAL OF MEDICINE, SURGERY AND THE COLLATERAL SCIENCES.

EDITED BY

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### EDITORIAL.

#### THE AMERICAN MEDICAL ASSOCIATION.

As the time is approaching for the 29th annual meeting of the American Medical Association, certain questions pertaining to its general management, and bearing more or less upon its present and future influence, may properly invite attention. And one of these questions relates to the mode of electing officers, and especially the President. No one can doubt that much of the reputation, both at home and abroad, of this Association must depend upon the character of its presiding officers. It is, in one point of view, of less consequence whether he is from the North or the South, the East or the West; whether he sympathized with or against the rebellion; whether he is a man of fine presence, and popular in a social sense; nor even whether he is acquainted with parliamentary rules and would make the best presiding officer under a call for the "previous question"—in our opinion, all these considerations are of less consequence than that he should be a representative man in his profession; that is to say, a man known to all by his labors, and acknowledged by a majority of his contemporaries to be deserving of the highest honor. He ought to be a man who would do more honor to the Association than the Association could do to him.

It is a little singular, perhaps, that in this eminently democratic

country, in which, theoretically, the people rule, no method has yet been devised by either politicians or statesmen which will prevent the nominations and appointments from being controlled in most cases by the "ring," the "caucus," or the "boss." Equally difficult has it been found to prevent this kind of centralization and limitation of power in medical societies, and the fault has been, so far as the American Medical Association is concerned, that every now and then, to say the least, a gentleman has been chosen to this office who was in no sense a representative of the profession, nor in any proper sense its deliberate choice.

The provision made for the election of all the officers, including the officers of the several sections and the standing committees, is as follows:—

"They shall be nominated by a special committee of one member from each State represented at the meeting, and shall be elected by vote on a general ticket."

Nothing could seem more fair, and in a strictly Arcadian state of society, the working of this system would probably be all that might be desired; but it is quite certain that the human mind, in the course of its development to its present condition, has wrought out many inventions, and not the least of these is evasion of the force and intention of law. Thus it happens that, on the 2d day, when the President suddenly announces to members that there will be a recess of half an hour, in order that the members from each State may hold a private caucus, and select, each State for itself, one gentleman for the "nominating committee," the members gather, as well as they can, in little groups, or in two or three private rooms; most of the time, on the part of a majority of the members, being occupied in finding the place of meeting. When found, the member has, perhaps, already been appointed, and the delegates are ready to report. If they had found the place of meeting earlier, they would have noticed that one gentleman—of pleasing address—took charge of the small, brief and harmonious caucus, nominating the chairman, secretary and the member of the committee, and that at his suggestion the member was placed under no restrictions as to the names he might select for officers. This would evidently be improper, as it would be construed into an attempt to anticipate and control the action of the nominating committee. The gentleman must not be embarrassed by "instructions."

It was fortunate that the gentleman of pleasing address knew where the caucus was held, and was there in time, as it was apparent that no one else knew exactly what was to be done, or who was the best man to be put upon the committee, and the delegates might have embarrassed him by suggesting their own favorite candidates.

It will be seen that it would be easy, if one were disposed to do so, for an aspirant for office, or for his friends, to manipulate a majority of the caucus meetings, and we have reason to know that it is often, and sometimes successfully, done.

Can this be prevented? or, can the efforts of a certain class of office-seekers be, in any manner, rendered less effective? We think it can, and that, too, without changing the By-laws or Constitution.



and without the delays and commotion usually incident to an election without caucus nominations, and which the caucus system is wisely intended to obviate.

There is nothing in the laws of the Society to forbid the President asking for open nominations in the general meeting. These would not control the nominations by the committee, but might come as suggestions as to the prevailing wishes of the members. The members should then have instructions to meet at the close of the session then in progress, and the place of meeting of each State should be indicated. The member of the "nominating committee" being chosen, the chairman should invite opinions, and the delegates should be given to understand that they can "instruct" the member as to how to cast the vote of that State, at least within certain limitations, if they choose to do so.

Beyond this, nothing can be done, perhaps, at present, to remedy a notoriously growing evil, except for the Association to reject the nominations in whole or in part, whenever they are unsatisfactory, and especially to refuse to accept of those candidates who are known to have been laying pipe for several successive years, and which will, no doubt, be completed to Buffalo by the 4th of June.

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## LECTURES.

### CLINICAL LECTURE ON THE HÆMORRHAGIC DIATHESIS.

Delivered in Bellevue Hospital, New York.

BY

JOHN T. DARBY, M. D.

Professor of Surgery in the University Medical College, N. Y.

[Reported for THE HOSPITAL GAZETTE.]

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GENTLEMEN:—I have brought this boy before you to-day, as an illustration of what is commonly known as the hæmorrhagic diathesis. Although you read about this condition in your text-books, it is very seldom that we have an opportunity of exhibiting a case of the kind in the clinic, as it only occurs rarely. If you look at the pallid face, the bloodless lips, the tongue equally so, and the general tremulousness, you see at once that there is a condition of profound anæmia. There is a lack, or deficiency, in the quality of the patient's blood, though the quality of that fluid may be normal. The watery materials are quite abundant, and are even in excess; but the vital fluid is deficient in its nutritive elements, and, consequently, we have a defect in the coloring materials, giving rise to the peculiar pale and colorless appearance of the external surface of the body.

If, however, there were nothing present in the case besides this, we could not say that there was anything but simple anæmia; which, as

you know, might arise from a variety of other causes besides the hæmorrhagic diathesis. Malaria is such a cause, and might give rise to a similar appearance. He also has the appearance of what is commonly known as a "*dirt-eater*," which is a defective condition originating in the improper digestion and assimilation of food. In this condition the individual, though he may eat a large quantity of food, does not seem to derive any benefit from it; it is not assimilated, and an impoverished condition of blood is the result. Such patients are said to be "*dirt-eaters*."

We must look farther, then, than the mere appearance, and enquire into the history; and, in the present instance, we find the peculiar appearance to be due to the hæmorrhagic diathesis.

Here, on the outer aspect of the leg, near the knee, is situated a small wound of the skin. You observe that it is not located near any large vessel, either arterial or venous, and yet, after this slight injury, the patient bled rather copiously and continuously for two weeks. After the extraction of a tooth, the gum continued to bleed for more than four days, notwithstanding the patient and persistent use of every kind of styptic remedy; the bleeding was finally controlled by the application of a solution of the perchloride of iron.

In almost all of these cases you will generally find that some of the relatives of the patient have suffered from a similar condition, and usually it exists on the maternal side. One of the most frequent predisposing causes of the diathesis is an hereditary taint.

The immediate cause of the hæmorrhages is, either a want of proper innervation of the blood vessels, or a lack of proper contractility in the muscular walls themselves. This is the only reason which has yet been given to satisfactorily explain these cases.

In an experience of eighteen years I do not remember of ever having seen but one similar case. That was about six or seven years ago. The patient bled continuously from the nose for six or seven weeks, and then finally died. Every effort was made to save him, but it was all in vain. He received the best and most nourishing food in ample quantities and was treated with every known styptic. He received ergot internally, and many other medicines too numerous to mention, but nothing succeeded in stopping the hæmorrhage, and he finally succumbed. In that case the diathesis was transmitted directly through four generations, and this shows what a powerful factor hereditary predisposition is in the production of the disease. This unfortunate child exhibited in a marked degree, what Niemeyer describes as characteristic in some cases of the disease, viz.: a marked dilatation of the superficial veins. All the superficial veins were well marked, and you could follow their distribution down to the very small filaments from which they arose. They looked like streams with their tributaries, and the larger veins, such as the saphenous, the cephalic, the radial, and so on, could be followed with all their branches down to the terminal filaments. Each family or village of veins, as it were, was quite distinct, and it seemed like a geographical map. The same state was present on the chest and abdomen.

This condition is similar to what you observe when there is a tumor,



pressing on some larger vessel, and the smaller veins that flow into it are distended with blood and their course becomes well marked on the surface. You often see the veins thus prominent in women with cancer of the breast. In cirrhosis of the liver, likewise, where the internal circulation is interfered with, the superficial vessels have to carry an increased amount of blood. In the hæmorrhagic diathesis the same condition exists, but it is not due to a similar cause, arising in these cases from an improper nerve supply to the blood vessels, or a want of proper contractility of their muscular fibres. The boy before us does not exhibit this peculiarity and in many cases there is no outward apparent characteristic of the disease, except, perhaps, the pallor and bloodless condition of the skin, which, however, as you are well aware may be due to many other causes.

Now what can be done as regards treatment? The boy is not old enough to take proper care of himself intelligently, and must be carefully watched by those around him to guard against accidents, wounds, injuries, etc., and even the slightest scratch of the skin, for no matter how small it might be, it might cause a hæmorrhage that would end in death. All those accidents must be prevented by himself and those around him, and the physician must prescribe remedies that will have the effect of improving the condition of the nervous system and of increasing the contractility of the vascular walls.

I would advise, in the first place, good nourishing food to build the body up and impart a certain amount of resistance to hæmorrhages, and also to enable him to withstand them more effectually if they do occur. At the same time some nervine is appropriate, one that will have a special tendency to affect the vaso motor system being preferable. Some preparation of strychnia, either the sulphate or the alkaloid itself will give tone to the nervous system. Ergot should also be used for its action on the muscular fibres themselves. Besides these measures he should have plenty of exercise and breathe good air, and general hygienic rules should be strictly adhered to.

I am glad, gentlemen, to be able to bring this case before you as it is a very rare one, and you might not have the opportunity of seeing one again for a long time.

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## CLINICAL LECTURE ON SECONDARY SYPHILIS AND BRIGHT'S DISEASE CURED BY JABORANDI.

Delivered at the Pennsylvania Hospital,

BY

J. M. DA COSTA, M.D.,

Professor of Practice of Medicine in Jefferson Medical School.

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Reported for THE HOSPITAL GAZETTE.

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### I. SECONDARY SYPHILIS.

This woman was admitted to the hospital on the twenty-first day of February. She then had the usual symptoms of dysentery, viz.: blood in her passages, bearing down pains, and febrile excitement. Under active treatment the dysentery was quickly checked. Soon



after this the patient's joints began to swell, and the unmistakable signs of articular rheumatism were ushered in. Under the belief that the case was one of true rheumatism, the regular treatment by the salicylates and salicylic acid was at once begun. Though the effect of these useful remedies was soon apparent, yet it did not seem to me that the case was much improved by their use, so I stopped them. As the woman was very weak, and, at the same time, feverish, I ordered her quinia and the acetates in large doses. The rheumatic symptoms slowly yielded; still there was a good deal of pain in the bones, and the patient did not seem to rally completely. Just as I was beginning to be very much perplexed as to the cause of this retarded convalescence, an eruption appeared on the face, and all doubt was at once dispelled. The eruption on the face was altogether typical. The same eruption appeared over various parts of the body—on the hands, chest, etc. Though this eruption was papular, yet the papules were small. In other parts it rather resembled maculæ. There has been but a very small amount of desquamation, and no itching.

I bring the woman before you this morning so that you all may take a good look at her, and so carry away in your minds the appearances of a very typical case of early secondary syphilis.

Though this is not in any way an unusual example of the disease, there are yet a few side questions which I wish to discuss with you before letting the case go. First, then, as regards the early symptoms of dysentery. What were they due to? I cannot give you a conclusive answer to this question. They may have been syphilitic manifestations; and yet I must candidly say to you that affections of mucous membrane are not generally the result of syphilitic poisoning. I think that we must look upon the dysentery as rather a coincidence than a symptom of specific disease.

Secondly, as regards the curious, irregular, ill-defined rheumatic attacks. Why was the treatment by salicylic acid and the salicylates of so little avail? Evidently, because the articular rheumatism was of syphilitic origin. The unyielding pains and persistent joint affection were uninfluenced by our treatment because they were due to syphilitic infection. Syphilitic rheumatism is not likely to be much affected by salicylic acid.

As soon as the dysenteric and rheumatic symptoms had passed away and the eruption had appeared, clearing away all doubt as to the true nature of the case, the patient was at once placed on an anti-syphilitic treatment—twenty grains of the iodide of potassium three or four times daily. I gave this drug, not because I thought it the best treatment for the specific disease as it appeared in this woman, but because I thought that the pains in the bones and the other rheumatic symptoms demanded it; and I was right in this belief, for the joint pains rapidly began to pass away. Just as soon as I was satisfied of the disappearance of these symptoms, I exchanged the iodide of potassium for a mercurial treatment, which is much better than the iodide in the early stages of this affection. I gave corrosive sublimate in doses at first of one twenty-fourth  $\frac{1}{24}$  of a grain, thrice

daily. Later I doubled this amount so that the patient took 1-24th of a grain every three hours, making the whole amount ingested during the day equivalent to one-quarter of a grain of the bichloride. This was received without the production of any symptoms of poisoning. So much for the medicines employed. We shall give the patient plain food and keep her in bed until all the bone pains are gone.

#### ACUTE BRIGHT'S DISEASE CURED BY JABORANDI.

A. W., æt 55, single. Admitted on March 20th. Has never suffered from rheumatism, and has never had any specific disease. Has always been regular in her courses. The patient states, most positively, that she has been perfectly well all winter, and that her illness only began one week prior to her admission. She then noticed that being exposed to the vicissitudes of the weather, her feet and then her face began to swell. Finally, a general anasarca came on. She had, at the same time, some loss of appetite, with gastric pain and cough. When she was admitted to the hospital, her whole body was greatly swollen, and she was somewhat feverish; the temperature in the mouth being  $99^{\circ}$ . The heart was beating feebly, or rather the sounds of the heart were feeble. She complained of pain and weight in the pit of her stomach, and of considerable dyspnœa. She passed but little urine. There was no heart murmur to be heard, although we made a very careful examination of that organ. The tongue was clear, and the digestive disturbance not much marked.

What was the cause of the dropsy? A clue was at once afforded us by an examination of the urine, which was found to contain an enormous amount of albumen; the albumen, when precipitated, filling at least one-third of the test-tube. The microscope taught us that the urine also contained blood corpuscles, epithelial and hyaline casts and a few oil drops. Most of the casts were, however, epithelial.

I at once diagnosticated the case as one of acute Bright's disease—Bright's disease complicating acute renal dropsy. All this was self-evident. Only one doubtful point remained to be cleared up. Was, or was there not, prior organic disease of the kidneys? This was at first hard to determine off-hand. We had to wait until the acute attack had passed away under the proper treatment. The presence of casts and blood corpuscles in the urine seemed to answer the question in the affirmative at that time.

To-day we have the best of reasons for concluding that no disease of the kidneys pre-existed. The case has ended in perfect recovery. The abnormal constituents of the urine have almost entirely disappeared. This case has been an extraordinary one, on account of the patient's very rapid recovery.

And now you will, of course, want to know what our treatment has been. How we have brought it about that in the course of two weeks after her admission the patient is entirely recovered. The general dropsy, albumen in her urine, and dyspnoea all gone together. I ascribe all my success in the treatment of this case to the free use of jaborandi. Five days after the jaborandi treatment was begun, the whole face of the case was changed. The dose I ordered was one



drachm of the fluid extract of jaborandi three daily. This dose produced excessive diuresis and diaphoresis. I am convinced that in jaborandi we possess a most valuable agent for combating the dropsical complications of Bright's disease. It should be given either in the form of the infusion, or the fluid extract. In cases where uræmic poisoning is a factor, and where the drug is consequently not well borne by the stomach, I have administered jaborandi by injecting it into the bowel. Though the effects of the drug when injected were not so striking as in the present case, I yet see no reason why it should not be given by the bowel as well as by the mouth. I have also tried the drug hypodermically, but I prefer not to speak positively at present of its effects when so used. In one instance I will say that it did produce considerable irritation of the skin.

How are we treating this woman, now that the dropsy has all gone? She is taking dialyzed iron internally and hypodermically. This treatment is improving vastly her general health and nutrition.

The origin of the disease in the present case is a very common one. It was brought on by cold and exposure. In children, acute Bright's disease generally follows scarlet fever. In adults it usually comes on immediately after exposure to dampness and vicissitudes of weather.

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## ORIGINAL ARTICLES.

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### SUB-LINGUAL PHLEGMON.

BY

EDWARD J. BIRMINGHAM, M. D. NEW YORK.

Surgeon to the Good Samaritan Hospital, and to the Out-Patient Department of Bellevue Hospital, and Physician to the Chapin Home, Etc.

On Thursday, March 1st. 1877, I was called to see Mrs. L., a rather corpulent woman 53 years of age, married, and the mother of 7 children, all living and healthy. Mrs. L. had always enjoyed the best of health until about six weeks previous to this date, when she began to suffer considerably from a pain near the right ear; this was relieved in about a week or ten days by a copious discharge of pus from the external auditory meatus, which has continued more or less to the present time.

She now complains of a pain just below the angle of the jaw on the right side, which extends somewhat in the neighborhood of the ear. It causes considerable annoyance and prevents sleep and deglutition. Ordered cathartic, anodyne pill, and poultice.

The following day the pain and inconvenience had increased, and the throat felt sorer. An examination revealed no swelling externally, no pharyngitis or tonsillitis, but there was some stomatitis and the tongue was slightly enlarged and pushed up; deglutition extremely painful. Ordered poultices to be continued, and a mixture of pulv. chlorat. potas. in honey to be taken into mouth frequently.

The next morning Saturday the tongue had enlarged to such an extent that I requested a consultation, and accordingly Dr. J. L.



Little was called. We concluded to make an incision within the mouth, beneath the tongue, and the bistoury inserted to the depth of half an inch, gave a negative result, and we concluded to await further developments. On Sunday morning the tongue had become displaced to such an extent as to obliterate the cavity of the mouth by having been forced upwards and backwards, and respiration was effected with the greatest difficulty. The patient had slept none for the past two nights, as every attempt to seek the recumbent position brought on suffocative attacks. She suffered terribly from thirst, but was unable to take a drop of liquid into the mouth to quench it. In fact, her sufferings were intense, and it was evident that she could not long survive in her present condition. Thinking that possibly I might find a depot of pus I passed an exploring needle beneath the tongue downwards and backwards and also downwards, but with no satisfactory result. Dr. H. B. Sands saw the patient in consultation later in the day. He renewed the explorations with the trocar, but with no better result. We concluded that tracheotomy might become necessary, but that for the present nothing more was to be done—Nourishment by the rectum.

The following morning I was called at an early hour to see the case, the patient was unable to assume any position except sitting, with the head bent forwards. She was taking long deep inspirations, giving evidence of the small space admitting air, and was becoming cyanosed. She had had no rest and was almost completely exhausted. Upon attempting to raise the head or recline the body, the enlarged tongue gravitated to the posterior wall of the pharynx and produced a violent suffocative attack. The case demanded urgent measures and accordingly I sent immediately for Drs. J. L. Little and F. A. Lyons, who resided in the neighborhood. A large sized aspirating trocar was passed in various directions into the enlarged mass beneath the tongue, both from the cavity of the mouth, and through the integument up behind the symphysis mentis, but without encountering any depot of pus. After further consultation and acquainting the family with her condition, (of which indeed they seemed to be fully aware) and of the dangers of operative interference, we decided upon tracheotomy, as the only means of prolonging life.

We selected chloroform as the anæsthetic, as it would give rise to little or no struggling. It had to be administered with the patient sitting and the head inclined forwards. When placed on the operating table it was evident that she was rapidly sinking, and before she could be completely anæsthetized, she became deeply cyanosed and expired. I immediately cut into the trachea, inserted a tube, and endeavored to resuscitate the patient by artificial respiration, but without avail.

This case is interesting on account of the extreme rarity of the affection. Drs. Sands and Little, in their large surgical experience, never having encountered a similar case, and I have been unable to find any on record. As regards operative interference, I think that if thorough exploration with a small trocar does not reveal the situation of a collection or collections of pus, in time to evacuate

such depots before the patient becomes exhausted, that tracheotomy is demanded. This, in connection with rectal alimentation, will undoubtedly give us an opportunity to treat the affection as an ordinary phlegmon in any other situation, without any danger of the patient becoming exhausted from want of nourishment and oxygen.



## HOSPITAL RECORDS.

### PRESBYTERIAN HOSPITAL, NEW YORK.

Reported by ALBERTO LACAYO, M.D.

#### LIGATION OF BOTH LINGUAL ARTERIES, PRELIMINARY TO EXCISION OF RIGHT LATERAL HALF OF TONGUE.—SERVICE OF DR. LEWIS A. STIMSON.

*Operation on Right Side.*—Patient being well under ether, Dr. S. made a curved incision three inches long, concavity upwards, its centre 1-4 inch above lesser cornu of hyoid bone. The submaxillary gland was exposed, its sheath opened freely, and the gland, which was much enlarged, raised. The bellies of the digastric muscle were exposed and the hypoglossal nerve sought for between them, and behind the posterior border of the mylo-hyoid muscle.

The fascia covering the hyoglossus was much thickened, but after dividing it in the general direction of the external incision and pressing back its upper portion, the hypoglossal nerve and lingual vein were exposed. As the vein was large and lay near the pulley of the digastric, it was divided between two ligatures. The fibres of the hypoglossus were then picked up with a pair of forceps and divided for about 1-4 of an inch, the lingual artery found below it. A laterally curved aneurism needle armed with a cat-gut ligature was passed from below upwards, and the artery tied just above the point where a large branch, supposed to be the dorsal branch, was given off. Both ends of the ligature were cut short. A drainage tube was inserted in the wound, the edges of which were brought together by silk sutures. (It was done in 40 minutes.)

*Operation on Left Side.*—The operation on this side was essentially the same as that on the right side, the only difference being that the left lingual was exposed more readily, as the submaxillary gland was much smaller, the fascia below it not so dense, and it was not necessary to tie the lingual vein, (Occupied 20 minutes.)

*Removal of Tongue.*—The tongue was so firmly bound to the floor of the mouth that it could not be drawn out. The tip was seized with a pair of forceps; the whole organ was liberated from the floor, drawn forward, divided with scissors along the median line to within half an inch of the epiglottis and then across to its edge. There was no bleeding whatever.



## COLORED HOSPITAL, NEW YORK.

Reported by FRANCIS HUBER, M.D.

## CEREBELLAR HEMORRHAGE.—SERVICE OF DR. S. WHITALL.

E. F., 46—M.—Black.—N. Y.—Admitted Aug. 17, '77. On admission, patient was fairly nourished. She presented the appearance of one suffering from some chronic cerebral affection. From a friend who called some time after the death of the patient, it was ascertained that she had been complaining of "neuralgia" of head for four or five years. She also had "fits" at times, which a doctor called epilepsy. Her relations (how closely related not known) were some of them "asthmatic" and some had "*phthisic*."

The right side of face was paralysed. No loss of motor power was observed in the upper extremities. In walking, she would drag the right foot. With the exception of "headache," she did not complain of anything special.

The patient was rather quiet, and somewhat apathetic. When addressed, she would answer rationally, though in a hesitating and sluggish manner. In the examination, the most prominent subjective symptoms developed were dyspnoea, (present even when patient was quiet), a peculiar stridulous character to the breathing, and husky voice. A careful physical examination failed to reveal either cardiac or pulmonary disease. Search for aneurism or intra-thoracic tumor resulted negatively. Up to the date of her death, her condition was not materially changed. On the morning of the 20th she was found under the bed unconscious and breathing stertorously. The body was rigid, with the head thrown back; eyes were widely open and staring. After being put to bed, she seemed to regain consciousness to a slight extent, for she rolled over on right side, and with one hand pointed under the bed, with the other signified that she desired to vomit. When a vessel was brought, she acted as though nauseated, but did not vomit. A few moments after, death occurred. Urine, amber, acid, 1012, non-albuminous.

*Autopsy*, 10 hrs. P. M.; body fairly nourished; rigor mortis marked.

*Brain*.—The pia mater at the base and convexity was found to be thickened and opaque. In the Sylvian fissures chronic adhesions were discovered. At the base, underneath the pia mater covering the medulla, cerebellum and pons, a large amount of clotted blood was found. The arteries at the base were intact. The inferior cerebellar artery of right side was thickened, translucent, readily torn, and at one place (in cerebellar portion) an apparent dilatation existed, but upon slitting up the artery this proved to be a morbid growth originating in its walls. A very distinct prominence was observed in the right lobe of the cerebellum. An incision into this exposed a mass of clotted blood nearly as large as a hen's egg. On close investigation, it was found that the blood had probably escaped from the right inferior cerebellar artery, after it entered the brain tissue.



On the attached surface of the artery, a rupture was discovered. Whether ante or post mortem, could not be determined positively, as the vessel was so very friable. The medulla softer than usual, did not contain any extravasated blood. The 3d and 4th ventricles with the intervening canal were partly filled with coagula.

*Lungs*.—Seat of hypostatic congestion, otherwise normal.

*Heart*.—No pathological changes present. In the aortic coats numerous calcareous plates were perceived.

Several calcareous glands existed at the root of the left lung. One was situated just at the point where the left recurrent laryngeal nerve is given off from the par vagum. The latter, at the origin of the former, was flattened out, and so intimately connected with the calcareous bronchial gland, that a separation was not possible.

An examination of the larynx revealed neither ulcerations, new growths, nor inflammatory changes, to explain the laryngeal symptoms; a little tough mucus only was discovered.

*Liver*.—Upon its surface numerous depressed cicatrices (remains of specific peri-hepatitis) existed. The capsule was considerably thickened and opaque; organ otherwise healthy.

Spleen and kidneys normal.

*Microscopy*.—The growth upon the cerebellar artery was found to be a gumma—consisting largely of small round nucleated granular cells, spindle and club-shaped cells in connective tissue. No alveolar arrangement detected. An examination of the artery revealed a similar infiltration of cells between the middle and inner coats, while the outer coat contained an abundance of amyloid material, but no cellular formations.

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## PERISCOPE.

### COLLABORATORS.

*Dermatology:*  
HENRY G. PIFFARD, M.D.  
*Diseases of the Nervous System:*  
EDWARD C. SEGUIN, M.D.  
*Diseases of Women and Children:*  
FRANK P. FOSTER, M.D.  
*General Surgery:*  
EDWARD J. BIRMINGHAM, M.D.

*Genito-Urinary Disease and Syphilis:*  
ROBERT W. TAYLOR, M.D.  
*Materia Medica and Therapeutics:*  
FREDERICK A. LYONS, M.D.  
*Ophthalmology and Otology:*  
SAMUEL B. ST. JOHN, M.D.  
*Orthopedic Surgery:*  
NEWTON M. SHAFFER, M.D.

*Practical Medicine:*  
E. DARWIN HUDSON, JR., M.D.

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## THE VALUE OF EXTENSION IN THE TREATMENT OF FRACTURES OF THE FEMUR.

This is a clear and full exposition of the author's views of the proper treatment of these fractures. Dr. Hodgen maintains in common with a vast majority of practical surgeons, that continuous and equable extension is indispensable to the best results. He does not believe that the plaster-of-Paris dressing can possibly make continuous extension; neither when the patient is kept constantly in bed,

nor when he is permitted to be up and upon his crutches a portion of the time "The proposition is too absurd," he remarks "to deserve serious consideration." Dr. Hodgen does not think the proper extension can be accomplished except with the limb in the flexed position, and suspended so as to avoid the unequal resistance of friction.

Dr. Hodgen's arguments are specious, but they are not entitled to so much weight as they would have been had the facts been carefully gathered and arranged, and presented to the public. Certainly with his large experience and habits of accurate observation, this ought not to be difficult. Thus far the latest and most trustworthy statistics show conclusively that as between Buck's extension and plaster-of-Paris, the former gives the best results, in every point of view. It remains to institute similar comparisons between Buck's extension and Dr. Hodgen's suspension.—*J. T. Hodgen in St. Louis Med. and Surg. Jour. April, 1878.*

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#### DIAGNOSIS OF SCIATIC DISLOCATIONS OF THE HIP.

The writer calls attention to the fact that Dr. O. H. Allis, of Philadelphia, first gave to the public an account of the "New Sign" in the *Phila. Med. Times*, for March 28, 1874. Thus anticipating Dr. Dawson of Cincinnati by several years.—*Amer. Jour. Med. Sci. April 1878, p. 584.* [Dr. Dawson's paper was published in the number of this journal for Jan. 1, 1878.]

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#### SUB-CORACOID DISLOCATION OF THE HUMERUS, BY MUSCULAR CONTRACTION.

A Case.—*Amer. Jour. Med. Sci. April, 1878. From Rivista Clinica de Bologna, Jan. 10, 1877.*

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#### BACKWARD DISLOCATION OF THE HEAD OF THE HUMERUS.

Supposed to have occurred from muscular action. Reduced on the 29th day, by P. S. Connor, M. D., Prof. Anat. and Clinical Surgery, Med. Col. of Ohio.—*Amer. Jour. Med. Sci., April, 1878, (p. 451.)*

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#### NEWS ITEMS AND NOTES.

**American Medical Association.**—The Twenty-ninth Annual Session will be held in the city of Buffalo, N. Y., on Tuesday, Wednesday, Thursday and Friday, June 4, 5, 6 and 7, 1878, commencing on Tuesday at 11 A. M.

"The delegates shall receive their appointment from permanently organized State Medical Societies, and such County and District Medical Societies as are recognized by *representation in*

*their respective State Societies, and from the Medical Department of the Army and Navy of the United States."*

"Each State, County and District Medical Society entitled to representation shall have the privilege of sending to the Association one delegate for every ten of its regular resident members, and one for every additional fraction of more than one-half that number: *Provided*, however, that the number of delegates for any particular State, territory, county, city or town shall not exceed the ratio of one in ten of the resident physicians who may have signed the Code of Ethics of the Association."

 Secretaries of Medical Societies as above designated are earnestly requested to forward, *at once*, lists of their delegates.

Will you kindly send to the Secretary a list of your members with their residences, in order that a correct record may be made of all who are in affiliation with this body?

#### SECTIONS.

"The Chairmen of the several sections shall prepare and read in the general sessions of the Association, papers on the advances and discoveries of the past year in the branches of science included in their respective sections. \* \* \*"—BY-LAWS, Art. II., Sect. 4.

Practice of Medicine, Materia Medica and Physiology:

DR. A. L. LOOMIS, New York, *Chairman*.

Dr. J. H. ETHERIDGE, Chicago, Ill., *Secretary*.

Committee appointed to report to this Section:

On Clinical and Meteorological Records:

Dr. N. S. DAVIS, Illinois, *Chairman*.

Obstetrics and Diseases of Women and Children:

Dr. E. W. JENKS, Detroit, Mich., *Chairman*.

Dr. H. O. MARCY, Cambridge, Mass., *Secretary*.

Surgery and Anatomy:

Dr. HENRY H. SMITH, Philadelphia, Pa., *Chairman*.

Dr. E. T. EASLEY, Little Rock, Ark., *Secretary*.

Medical Jurisprudence, Chemistry and Psychology:

Dr. WALTER KEMPSTER, Oshkosh, Wis., *Chairman*.

Dr. E. A. HILDRETH, Wheeling, W. Va., *Secretary*.

State Medicine and Public Hygiene:

Dr. J. L. CABELL, University of Va., *Chairman*.

Dr. E. J. MARSH, Paterson, N. J., *Secretary*.

The following Committees are expected to report:—

On Prize Essays:

Dr. E. M. MOORE, Buffalo, N. Y., *Chairman*.

On Necrology:

Dr. J. M. TONER, Washington, D. C., *Chairman*.

On Catalogue of National Library:

Dr. H. C. WOOD, Pa., *Chairman*.

On Recommendations in President Bowditch's Address:

Dr. N. S. DAVIS, Illinois, *Chairman*.

To be acted upon:—

*Changes in By-Laws*, proposed by Committee on Nominations in 1877.



"Under Art. II., Sections, 10th line from top, the word *Essayist* shall be introduced immediately after the word 'Chairman,' so as to read as follows: 'The Chairman, Essayist and Secretary of the several sections shall, like other officers of the Association, be nominated, etc.'"

Same Article, line 22d *et seq.*, to read as follows: "The Chairmen of the several Sections shall preside at the meetings of their respective Sections. The Essayists shall prepare and read in the general sessions of the Association papers on some subject to be selected by themselves, but relating to one or more of the branches of science included in their respective Sections; the reading of such papers not to occupy longer than forty minutes for each."

Amendment proposed by Dr. S. C. BUSEY:—

*Plan for Organization of the American Medical Association.*

The general meetings of the Association shall be restricted to the morning sessions; and the afternoon sessions, commencing at three o'clock, shall be devoted to the hearing of reports and papers, and their consideration, in the following Sections:—

1. Practical Medicine, Materia Medica and Physiology.
2. Obstetrics and Diseases of Women and Children.
3. Surgery and Anatomy.
4. Medical Jurisprudence, Chemistry and Psychology.
5. State Medicine and Public Hygiene.

The Sections shall be organized by selecting from the permanent membership such members as may have acquired distinction in the branches of medical science assigned to the respective Sections, such selections to be made from the roster of permanent membership next preceding the adoption of this amendment, by a committee consisting of the chairman and so many of the ex-chairmen of the respective Sections for the three years next preceding as may be present at the time of the adoption of this amendment; provided, however, that no one shall be thus made a member of more than one section.

Only permanent members shall be eligible to membership of the Sections; and annually, as hereinafter provided, each Section may elect such as may be qualified by three years' consecutive membership, and who may have acquired distinction in the branches assigned to the Section. Forfeiture of permanent membership shall forfeit membership of Sections, but such forfeiture shall not prevent a re-election.

The officers of the Section shall consist of a Chairman, Secretary, a Committee on Business, a Committee on Membership, and a Committee on Essays. The Chairman and Secretary shall be elected by a majority of the ballots cast by the members of the Section, and shall hold their offices until the close of the business of the annual meeting next succeeding their election. The committees shall be appointed by the Chairman, and hold office for one year, or until their successors are appointed.

The Chairman shall preside at all the meetings of the Section, perform all the duties ordinarily pertaining to the duties of a presiding

officer; shall exercise general supervision over the business of the Section; see that the duties of the officers and committees are properly discharged, and shall prepare and read, in general sessions of the Association, a paper on the advances and discoveries of the past year in the branches included in the Section; the reading of such paper shall not occupy more than forty minutes.

It shall be the duty of the Secretary to keep a correct record of the proceedings of the Section, and report the same to the Permanent Secretary; to revise and correct the reports of the stenographer, and deliver the same to the Committee on Essays; and to perform such other duties as may properly appertain to the office of Secretary.

The Committee on Business of each Section shall consist of three members, to be selected, when practicable, from the members residing in or near the city in which the meeting of the Association is to be held.

It shall be the duty of this Committee to prepare business for the Section, and, with that in view, to select two or more subjects appropriate to the Section, and also to appoint from the members of the Section as many members, to each of whom a subject shall be assigned for report thereon, which report shall be prepared and submitted to the Section at the meeting next ensuing. Voluntary papers may, with the approbation of the Committee, be submitted by any member of, or delegate to, the Association. All papers and reports must be sent to the Committee at least one month before the meeting, and it shall be the duty of the Committee, after careful examination, to fix the time and order of presentation, and to prepare a memorandum of the titles, together with the main points set forth in the argument, which shall be printed and distributed to the members of the Sections by the Assistant Secretary.

The Committee on Membership of each Section shall consist of five members. It shall be the duty of this Committee annually to examine the roster of permanent membership, and recommend for election to membership of the respective Sections such as may be eligible and deemed qualified. It shall also examine the roster of membership of the Section, make all necessary corrections of names and addresses, erase from the list the names of all who may have forfeited their membership, and designate the deceased members.

The Committee on Essays shall be composed of three members. To this Committee shall be referred for examination all papers read before the Section, and all debates. The Committee will be allowed thirty days, at the expiration of which time it shall forward the papers to the Committee on Publication, with such recommendation as may be deemed proper; but no paper or discussion, either in whole or in part, shall be published in the Transactions without the recommendation in writing of said Committee on Essays.

The Committee of Arrangements shall provide for each Section a competent stenographer, who shall furnish the Secretary with a full verbatim report of the debates of the Section.

No member shall address the Section more than once upon the same subject, nor speak longer than fifteen minutes without unanimous consent.



The Permanent Secretary shall prepare annually a list of the members of each section, which shall be published in the Transactions, and shall furnish each delegate with a printed plan of organization and by-laws, together with rosters of the permanent and Section membership.

Amendment proposed by Dr. T. D. FITCH:—

“Plan of Organization, Sect. II., paragraph referring to permanent members. Strike out ‘and of such other members as may receive the appointment by unanimous vote, they shall continue such so long as they remain in good standing, etc.’”

Amendments proposed by Dr. N. S. DAVIS:—

“Strike out from By-laws the whole of fifth paragraph, Sect. II., ‘Papers appropriate to the several Sections, in order to secure consideration and action, must be sent to the Secretary of the appropriate Section at least one month before the meeting which is to act upon them. It shall be the duty of the Secretary to whom such papers are sent, to examine them with care, and, with the advice of the Chairman of his Section, to determine the time and order of their presentation, and give due notice of the same; and, after their full examination and discussion by the Section, they shall be sent to the Permanent Secretary of the Association.’”

Strike out all of third paragraph, Section VIII., “It shall be the duty of every member of this Association, who learns that any existing medical school departs from the published conditions of graduation, to report the fact at the annual meetings; and, on proof of the fact, such school shall be deprived of its representation in this body.”

Strike out all of second paragraph, Section IX., “This Association recognizes as a ‘regularly organized’ medical college one that has been represented at any meeting, and that complies with the rules and directions found in the published *Transactions*, vol. xiii. page 33.”

Amendment offered by Dr. X. C. SCOTT, and others:—

“Add to the five existing Sections a Section for Ophthalmology, Otology, Laryngology, which shall be known and designated as Section 6.”

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It is probable that several railroads will carry delegates to Buffalo and return for one and one-third fare. Such roads as agree so to do will be announced in the Journals.

**Bronchine.**—The famous “bronchine” is made from a prescription originally obtained by a member of the Union Club of this city, from his medical attendant, which is as follows :

R	
Mag. sulph.	3 ij
Spts. Mindereri,	5 vj
Syr. limon.	5 ij

M.  
Sig. Dose, a tablespoonful.



**Treatment of Diphtheria.**—During the past season a very malignant epidemic of diphtheria prevailed in a region of Rhode Island of which Little Comfort is the centre. It attacked all ages, and was very fatal, notwithstanding the conscientious trial of all the usual remedies. Dr. White, of Little Comfort, at length hit upon the following remedy, the success of which was, in almost every case, prompt and efficient.

Pulv. cinchona,	2 parts.
“ capsici,	2 parts.
“ ipecac,	1 part.

M.

Sig. 5 to 10 grains every 2 hours.

Dr. W. subsequently made a tincture from the above powder, which was administered in doses of from 5 drops to a teaspoonful every two hours. Since last fall three barrels of this tincture have been sold.

**Death of Prof. Francis G. Smith.**—Dr. Francis Gurney Smith, Professor of the Institutes of Medicine in the University of Pennsylvania, died in his native city, Philadelphia, on April 13th, at the age of 60. Since his graduation in medicine in 1840, he has held a prominent place in the profession. He was one of the compilers of *Neill & Smith's Compendium of Medicine*, was editor of the *Phila. Med. Examiner* for nine years, and of the American editions of *Carpenter's* and *Marshall's* works on *Physiology*, and the translator of *Barth and Roger's Manual of Auscultation and Percussion*.

**The Use of the Uvula.**—Prof. Alfred H. Garrod, F.R.S., in a recent lecture, laid great stress upon the functions of the uvula, an organ present only in man and the anthropoid apes, and expressed his opinion that the uvula serves the purpose of preventing the food from entering the back part of the nose, if it should so happen that during the act of swallowing the individual should make a sudden effort at expiratory breathing. The uvula, being pressed back by the moving food against the posterior wall of the pharynx, would so retain a free communication between the mouth and the pharynx, at the same time that the nares are closed by the soft palate.—*Scientific American*.

**Professional Secrets.**—The profession of Philadelphia are endeavoring to effect the passage of the following bill:—“No person duly authorized to practice physic or surgery shall be allowed or compelled to disclose any information which he may have acquired in attending any patient in his professional character, and which information was necessary to enable him to prescribe for such patient as a physician, or to do any act for him as a surgeon.”

**Public Analysts.**—The *Société d'Hygiène* of Paris is making arrangements to establish in the cities and towns of France chemical laboratories for the purpose of examining articles of food and detecting adulterations or unhealthful constituents.

**American Microscopical Society.**—At a recent meeting of this society, the following officers were elected for the ensuing year:—

*President*, John B. Rich, M.D.; *Vice-President*, Wm. H. Atkinson, M.D.; *Secretary*, O. G. Mason; *Treasurer*, T. d'Oremieulx; *Curator*, John Frey.

**Conclusive.**—In an article on Amylidenamine Silver Nitrate, by W. G. Mixture, in the *American Journal of Science and Arts*, the author states that, "if the corresponding ammonio compound be regarded as diammonium-argentammonium nitrate, the derivative from valeralammonia may be regarded as di-amylidenammonium-argentamylidenammonium nitrate."

**A New Vapor Bath.**—Mr. Chas. Jansen, of this city, has invented a vapor bath adapted in shape to the entire body or any part, and constructed of outer closed and interior perforated walls, forming compartments to which steam is supplied by pipes.

**Abuses of Medical Charities.**—At the last monthly meeting of the Medical Society of the County of New York, Dr. George Mitchell read a report prepared by the Committee on the Abuses of Medical Charities. In this it was stated that in Philadelphia during 1876 one out of every five inhabitants was treated gratuitously at the dispensaries or Hospitals; in Boston during the same period one out of every four, and in this City also one out of every four. It was shown recently that only 12 out of 152 applicants for free treatment, whose cases were inquired into, were proper objects of charity. Excluding the institutions on Blackwell's Island there were, during 1876, it was said, 42 hospitals and dispensaries in this City, or almost two charitable medical institutions for each ward. The revenues of those institutions aggregated \$720,561, and the number of patients treated was 251,544. Proof of the ability of the greater number of persons who apply for free treatment at the institutions to pay at least small fees, was shown to exist in the fact that of the entire number of persons who were vaccinated at the Eastern Dispensary in this City, in the months of May and June, in 1876 and 1877, only 38 per cent. returned to the institution at the end of eight days to show how the virus had acted. Each of the persons comprising the remainder of 62 per cent. forfeited the 50 cents paid at time of the vaccination. It was argued, therefore, that persons who can afford to lose 50 cents each through negligence could pay physicians a small fee for services. A preamble and resolutions were commended by the committee for adoption by the society. These declared that as the benefits of dispensary and hospital service are not restricted to paupers as they should be, members of the medical profession are deprived of business properly belonging to them, and hence some of them are suffering for lack of the necessities of life. They next call upon the Legislature to enact laws to prevent persons receiving free medical attendance at institutions, who are able to pay for such aid. In conclusion they declare that hereafter members of the society shall not give gratuitous service in the charitable medical institutions except on pain of disfellowship. The preamble and resolutions were referred to the *Comitia Minora* of the society for further consideration.



**Good Samaritan Hospital.**—At the last monthly meeting of the Board of Managers of this institution, the following by-law was rescinded:—

“No member of a family whose income is over ten dollars a week shall be entitled to gratuitous treatment. Those families whose income is between ten and fifteen dollars per week shall be required to pay ten cents per week while under treatment in the dispensary department. Where the income is over fifteen dollars, but does not exceed twenty dollars, they shall be required to pay twenty cents per week. Where the income exceeds twenty dollars per week, the rate per week shall be fixed at the discretion of the surgeon. All moneys received from this source shall be handed to the Treasurer at the end of each month.”

In place of the above, the following substitution was made:—

“No member of a family whose income is over ten dollars a week shall be entitled to gratuitous treatment. Members of families whose income is between ten and fifteen dollars per week shall be required to pay twenty cents per week while under treatment in the out-patient department. Where the income exceeds fifteen dollars, the patients shall not be entitled to the benefits of the institution. All moneys received from this source shall be handed to the Treasurer at the end of each month.”

In a future issue we shall give an account of the service in this institution, and the result of the practical application of the “Provident System.”

**Lectures:**—We have completed arrangements for the publication of the following special courses of lectures, which will appear during the summer months:—

Two Lectures on Lister's Antiseptic Method of Treating Surgical Injuries; by James L. Little, M.D.

A Course of Lectures on Stricture of the Urethra and on Stone in the Bladder; by Robert F. Weir, M.D.

A Course of Lectures on Insanity; by Edward C. Seguin, M.D.

Other special courses will be announced later.

**Prof. Agnew's Case of Lithotomy.**—In the case reported in the last number of this journal, the patient, during the second week of convalescence, was seized with a very severe attack of peritonitis, which reduced him so greatly in strength that his system could not rally, and he died on the fourth day of the attack.



# THE HOSPITAL GAZETTE

AND

## ARCHIVES OF CLINICAL SURGERY.

A WEEKLY JOURNAL OF MEDICINE, SURGERY AND THE COLLATERAL SCIENCES.

EDITED BY

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[The editors hold themselves in no way responsible for the views expressed by contributors.]

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### EDITORIAL.

#### THE AMERICAN MEDICAL ASSOCIATION.—WHAT HAS IT ACCOMPLISHED?

It would be difficult to answer this question by any formal presentation of facts in evidence. If, during the existence of the American Medical Association, medical science has advanced in these states and the standard of medical education has improved, or the reverse has happened,—in either case it would be difficult to trace such results directly to the influence of this association, or perhaps to any other single source. The causes of progress or decay in medical science, as in politics or religion, are often inscrutable; but aided by the light of past experience in these and other matters, we may be entitled to form an opinion and to entertain a belief. In our opinion, then, it has accomplished much good. Every effort in the right direction is useful, even though the end attained is far short of the hope and intention of the one who makes the effort. The man who puts his hands to the lever gains muscle, and is a better man for it, if he does not appreciably move the weight; and a sufficient number of hands acting together is the lever of Archimedes, which, when it has found a fulcrum, is irresistible. This is our American mode of doing things—by the multiplication of hands. Power with us has no

centralization. There is no one mind to conceive, nor one hand to execute reforms. The people think, plan and propose, and when they are ready to act, they come together in masses, and by their united strength accomplish what under other governments would have been left to the central and absolute power.

Thus it happens that in this country medical societies are formed for every department of medical science, for cities, and counties, and states, and combinations of states. Of these, the American Medical Association, having the greatest number of members, gathered from the widest range, both geographically and scientifically, must necessarily have the greatest accumulation of strength. From the beginning this association has demanded a higher standard of preliminary education for medical students, longer terms of study, longer courses of college and hospital instruction, a higher standard of attainment for the degree of doctor in medicine, and strict adherence to the established code of ethics. If all these things have not been attained, it is quite certain that the medical profession is more and more impressed with their importance and necessity. One after another the best and most respected medical colleges are yielding to the pressure of opinion and of events, and are falling into line with the advanced views of educated physicians.

We do not yet see the millenium of medical matters very near at hand. We are afraid we may have to wait for that; but we see plainly enough, progress in the right direction, and it is our confident belief that to the steady, persistent and healthful influence of this association, much of this progress may be properly ascribed.

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#### NEW YORK COLLEGE OF VETERINARY SURGEONS.

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In our issue for the 15th of March we had occasion to make an exposé of an institution known as the "New York College of Veterinary Surgeons," at which time we showed that it was entitled only to the condemnation of the profession, as several members of its Board of Trustees and Faculty were either engaged in advertising and dispensing proprietary and secret remedies and "cure-alls," or were using or allowing their names to be used in furthering the sale of these nostrums. We also censured a prominent and highly esteemed member of our own profession for recognizing the institution to such an extent as to deliver the valedictory address at their commencement.

In reply to our denunciation we have received a letter from "R. W. Finlay, V. S., Professor of Theory and Practice, New York College of Veterinary Surgeons," in which he makes the following corrections of the statements contained in our editorial of the 15th of March. He informs us that George W. Busteed is not the Medical Director of the college, but a Trustee, and that the names of the medical men which appear on a circular setting forth the many virtues of his "Superlative Cure" were placed there without their consent. Prof. Finlay acknowledges all our other charges to be true; viz., that Mr. Going, the representative man of the Faculty, is the proprietor of "Copeman's Tonic Powders" and "Going's Worm Destroyer," that

he is engaged in corresponding openly and over his own name with horsemen in all parts of the country, through the pages of the *Spirit of the Times*, and that he advertises his nostrums. Also the connection of Mr. Busteed with the institution, with the modification noted above; and that the graduating class consisted of three, two of whom had failed in their examination three years before, when the college was under able and honorable management, the third being the brother of Prof. Going; and we have since learned that one of the two former gentlemen is Prof. Finlay's brother.

We have little more to say in regard to this matter. We are surprised that gentlemen should associate and identify themselves with an institution countenancing such unprofessional conduct and practices as we have called attention to. If the names of these gentlemen were put upon this "cure-all" circular without their knowledge, we would like them to inform the profession if they were made members of the faculty without their knowledge? Having been made members of the faculty of this institution, and having been subsequently made acquainted with the practices of its representatives, have their names been continued on its announcement without their knowledge? These are questions which we should be pleased to have these gentlemen answer; and we think that they not only owe it to themselves, but that they are obligated to that profession which has nurtured and honored them, not to bring disgrace upon it, but to resign their positions immediately. Dr. Hammond's offense is past, and we are charitable enough to believe that the dishonor which he brought upon the profession by acting as the orator of the evening upon the occasion of the graduation of three such distinguished gentlemen, was done thoughtlessly. We believe that he now sees his error and that it will be some time before he fails to thoroughly investigate any statements which may be made to him on any future occasion, when he may be called upon to appear before an audience as the representative of the medical profession, and in a position in which he may compromise its honor.

Prof. Finlay has asked us to correct the mistakes which were made in the issue for March 15. We have done so, by correcting Mr. Busteed's title, and by announcing that the names of the medical men appearing on the "Superlative Cure" circular were placed upon it without their consent, *and were allowed to remain on it without their command that they should be removed.* We have no reason to alter our convictions in regard to all parties concerned; indeed, time has but strengthened them.



## LECTURES.

TWO LECTURES ON LISTER'S ANTISEPTIC METHOD  
OF TREATING SURGICAL INJURIES.

Delivered at the College of Physicians and Surgeons, New York.

JAMES L. LITTLE, M.D.

Lecturer on Operative Surgery and Surgical Dressings in the College of Physicians and Surgeons, New York. Professor of Surgery in the Medical Department of the University of Vermont. Etc.,

[Reported for THE HOSPITAL GAZETTE.]

## LECTURE I.

GENTLEMEN:—We will turn our attention this morning to the subject of "Antiseptic Surgery" a topic, at present, of universal interest, and one with which, even should you never practice it, scientific medicine demands that you should be familiar.

Acknowledging its importance, then, we will at once pass to a consideration of the subject. Up to a comparatively recent date all the putrefactive changes taking place in organic substances were supposed to be produced by the oxygen of the atmosphere; the belief being based upon the fact that when the atmosphere was thoroughly excluded from the substance or substances in question, no putrefactive change occurred; and that such changes did take place soon after air was admitted or when it was not excluded.

Microscopic examinations, however, soon determined the fact that other substances were present in the broken down material, besides the products of decomposition. Minute living bodies, among which bacteria stand most prominent, were found to exist there in immense numbers. Whether the substance was solid or fluid these little bodies were found swarming through it, living and multiplying, and the question very naturally arose, how and where did they originate?

Bastian, on the one hand, advocated the theory of spontaneous generation, while others, including Tyndall, showed by various experiments that germs must have already existed in, or been introduced into the fluid or solid before the bacteria and their kindred could be produced; they springing from these germs when once the conditions for their production were favorable. To-day some of the greatest minds in Europe are engaged upon the subject; the scientific journals are filled with articles relating to it; and although the question is still unsettled, the practical application of some of the results of research and experiment has been successfully made in our department of medicine; viz., Surgery.

Professor Lister, accepting the germ theory, has applied to the treatment of open wounds an entirely new method, which has so far yielded the most wonderful results. To-day, I wish to give you some details concerning it, and before doing so I should like to impress it

thoroughly upon your minds, that in order to obtain results such as Lister's, it is absolutely necessary that nothing, however little, should be slurred over, and that the fullest and most careful attention should be paid to all details, both during and after the operation.

Accepting the "germ theory," then, we must believe that the atmosphere, everywhere about us, is filled with germs of various kinds, that, when the air is allowed free access to a wound, are very liable to settle upon and cling to it, and the resulting organisms to breed and multiply, almost *ad infinitum*, filling the fluids, pervading the solids, and producing changes that result in putrefaction. Knowing this then, it is very easy to understand that when the air containing such germs is thoroughly excluded from a wound, or when these germs are destroyed before reaching it, no such changes will take place. That degree of inflammation and suppuration which has hitherto been considered as the necessary result of such wounds will be entirely prevented, absorption of the products of decomposition not taking place traumatic fever does not show itself, nor indeed is there any rise in temperature.

Let us turn our attention for a few moments to the manner in which wounds heal.

There are two principal methods by which healing takes place. First, that which is called healing by adhesive inflammation. In these cases slight redness takes place around the wound; plastic lymph is poured out between the cut surfaces; there is a slight rise in temperature, and a small cicatrix is left after the wound is healed. This method surgeons generally call healing by "first intention." Second, healing by granulation or "second intention." By this, we mean those cases where, either from the edges being kept apart, or from some loss of tissue, primary union cannot take place. What results? Inflammation is set up around the wound, there is redness more or less marked, and a rise in temperature,—the so-called inflammatory or traumatic fever. The wound soon becomes covered with a thin pellicle of exudation, which rapidly goes on to the formation of pus. The pus once formed, the redness diminishes or disappears, the pain subsides, the temperature falls, and the discharge continues until the granulations rise up to a level with the edges of the wound, and cicatrization takes place.

I have purposely left out some of the methods of healing; the two that I have given you sufficing to illustrate what I have to say.

A wound, of whatever nature, treated strictly in accordance with the rules laid down by Mr. Lister, will heal without the appearance of any of the phenomena characteristic of union by the second intention, and under this treatment we no longer look for the "healthy, cream colored, laudable pus" of olden times. Indeed, that which we once considered normal, we now consider abnormal. I have performed a number of successful operations by this method. Recently I amputated the thigh of an old woman on account of malignant disease of the lower extremity. After the amputation the patient's temperature was accurately taken morning and night, and never, at any time during convalescence, did it rise higher than 99°, nor was



there the slightest suppuration. The same result followed, recently, in an amputation at the knee joint. I have also had, lately, four successive cases of removal of the breast heal without the slightest redness around the wound, the formation of pus, or elevation of temperature. To be sure, breasts dressed in the old way would occasionally heal without suppuration, but, gentlemen, this was a rare occurrence in my experience,—partial union being the rule, with more or less suppuration. Lacerated wounds, compound fractures, have all done well under this treatment.

Lister's method, properly followed out, prevents inflammation and suppuration, and this is something entirely new. I think, gentlemen, that if these successes continue under Lister's method of treatment, that some of us will be obliged to restudy our surgical pathology.

With these preliminary remarks, I will now describe in detail the materials used in applying Lister's method. Of all substances used as germ destroyers, carbolic acid has, thus far, proved to be the most effectual. Other antiseptics have been tried, but the results do not equal those obtained with carbolic acid. Lister's method is essentially this: In treating an open wound, let neither the air, the instruments you use, your hands, nor the dressings that are to be applied, nor in fact anything, come in contact with the wound unless it has been thoroughly saturated or wet with a solution of carbolic acid, and, at the same time, keep the wound thoroughly drained.

Carbolic acid comes in crystals, but the addition of a little water dissolves them; and gives you a solution. This sample, which I show you, is known as Calvert's carbolic acid. When here in 1876, Mr. Lister said that he used the absolute phenol, which he thought had less odor, and was more soluble than carbolic acid, which, however, is less expensive, and answers equally well. You should procure two bottles; one that will hold a quart, and one that will hold two quarts; and a two ounce graduate. The quart bottle of course contains thirty-two ounces, and by pouring out two ounces of water, you have thirty left. To this quantity of water you add an ounce and a half of carbolic acid, and you have a solution of the strength of 1 part of carbolic acid to 20 of water. By filling the two quart bottle with water, pouring off four ounces, and adding the same amount of carbolic acid ( $\frac{5}{16}$  iss) you have a solution of the strength of 1 part of carbolic acid to 40 of water. If, however, you wish to keep but one solution on hand, let it be the 1 to 20, and by pouring a cupful of this into a basin and adding a cupful of clear water, you have the 1 to 40 solution, whenever you may wish to use it. I think it is better to keep both on hand. Now, you are ready for work, in so far as the solutions are concerned.

As to the *spray*, Mr. Lister insists that the immediate atmosphere must, during the operation, be thoroughly carbolized, and the germs that it contains thus destroyed. For this purpose you will use the 1 to 20 solution. The proper use of the 1-20 and 1-40 solutions is a matter of importance, and it may be well to dwell a little upon it. The 1-20 solution is used for puri-



lying the parts upon which you are about to operate. They must be thoroughly washed off with soap and water, and afterwards cleansed with the solution. The hands of the surgeon and his assistants should be thoroughly cleansed, the finger nails being well cleaned by the use of a nail brush, and afterwards the hand should be washed in the solution. The instruments and sponges to be used should be placed in this fluid, even as long as half an hour before the operation. Again, the 1 to 20 solution should be used in compound fractures and recent wounds, when the wound has been exposed to the air. Before the dressings are put on, the wound should be thoroughly washed out with this solution in order that any germs that may have found lodgment in it may be destroyed.

This 1-20 solution is too strong to use for any length of time, as it benumbs your hands so that it is very difficult to operate, and is, therefore, only used at the beginning of the operation to cleanse the surgeons hands and the parts to be operated on; the 1-40 solution then being substituted and continued, it being strong enough. The 1-40 solution) is used for the instruments and sponges during the operation.

I dwell on this point, as there is some difference of opinion as to the use of these two solutions. In order to settle this, I wrote to Mr. Lister and received the following reply.

12 PARK CRESCENT, PORTLAND PLACE, 11th Dec., 1877.

MY DEAR SIR:—In reply to your inquiry in your letter of Nov. 26th, received yesterday, I write to say that I use the 1 to 20 carbolic acid lotion for purifying the skin of a part about to be operated on, and also my own hands before I begin to operate, and for cleansing instruments and sponges, and also for the spray, when a steam spray producer is employed. The 1 to 40 lotion is our ordinary lotion used for the sponges during the course of an operation, (the sponges having been purified before the commencement of the operation with 1 to 20) and for washing the wound when requisite, and for the lotion in changing dressings. The 1 to 20, I should add, is used for washing (in order to purify them) wounds inflicted accidentally, such as compound fractures.

Thanking you for your kind report of the progress which antiseptic surgery is making in America.

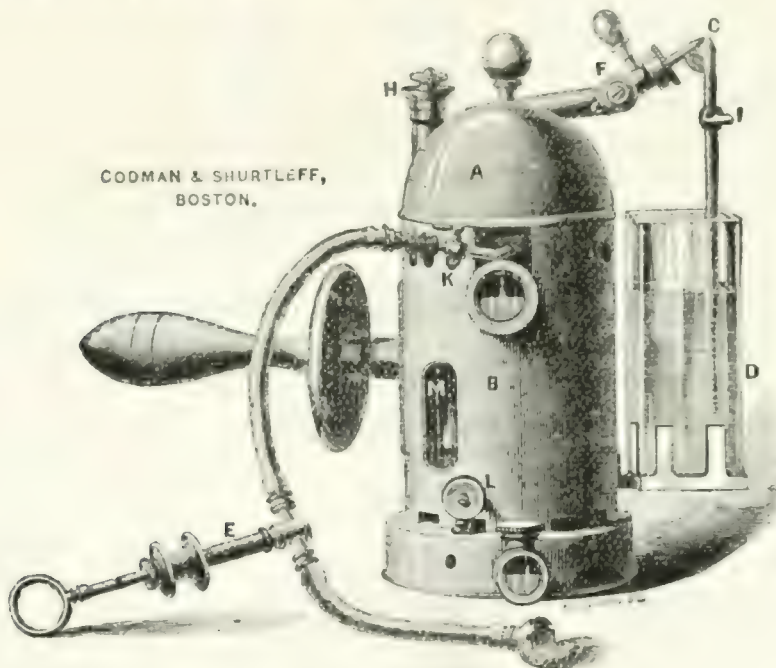
I remain, yours very truly,

JOSEPH LISTER.

A good spray producer should break up the fluid into a fine cloud, the finer the better, as coarse spray soon wets the operator's clothing and condenses rapidly upon the bed, and the hands and clothes of the surgeon. The apparatus should be large enough to work for from one and a half to two hours at a time. This little one (Fig. 3) I have here will run for an hour and a quarter. They should be so arranged that they can be placed and maintained at any level that may be desired, and should also have a contrivance by which you can regulate the amount of heat by raising or lowering the flame.

All the spray producers which I here exhibit to you, have one

fault—the flame not being protected by a piece of wire gauze, to make the light perfectly safe when using in proximity to ether; for in using these unprotected flames some serious accident will yet occur. Only a few days ago, while operating under spray, the flame of the lamp being a little below the level of the patient's head, the ether caught fire, and an explosion resulted which might have proved very serious. Fortunately, the patient was but slightly burned. Some of the lamps used are a little better protected than others, but they should all be surrounded with wire gauze after the manner of Sir Humphrey Davy's lamp, and thus made absolutely safe.



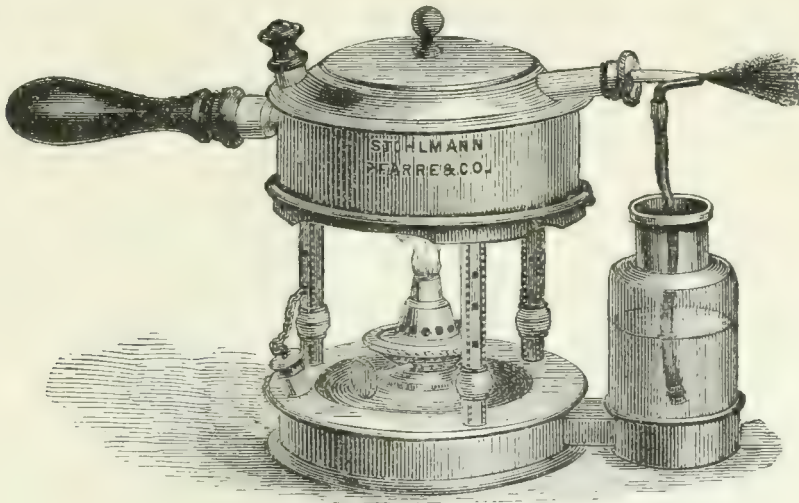
**Fig. 1.**

\* The pump E is no longer used for the purpose of filling the boiler.

The best spray apparatus is, undoubtedly, that made by Codman & Shurtleff, of Boston, Fig. 1. By means of a window in the boiler, you are enabled to determine when the water is getting low, and by a similar arrangement in the lamp, the amount of alcohol present. It has an apparatus by which the flame is raised and lowered, so that you are able to regulate the force with which your spray is projected. The one which I here show you has a very fine tube, which produces a very minute breaking up of the fluid, giving us a light cloud of spray. It also has a stand, which makes it very convenient for hospital or clinic work, being so arranged that you can raise or lower it as you wish.

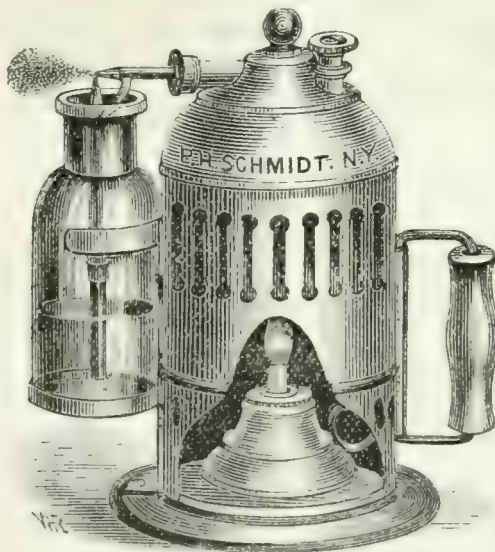
The next best instrument for this purpose is that of Dr. Weir, Fig. 2, which has the advantage of being cheaper than the one of which I have spoken. For hospital work it answers very well. It gives a good spray; this one, however, gives a much coarser spray than that of the Boston apparatus. This can be easily remedied.

Its great disadvantage is that the spray-tube is fixed and the apparatus must be lowered or raised while operating, by the assistant. Moreover, the lamp-flame should be thoroughly protected with wire-gauze.



**Fig. 2.**

I have here a small instrument that has done me a great deal of service, Fig. 3. This is a Tiemann's Steam Inhaler, altered, at my suggestion, by Schmidt, so as to give a good spray. It answers very well for dressing wounds. For large operations, it is necessary to use the large spray apparatus, this small one answering well for



**Fig. 3.**

subsequent dressings. Mr. Lister uses a still smaller one for this purpose, which he carries in his pocket. This small one which I have, will work for over an hour. The best instrument is the one which makes the finest spray, it wetting and numbing the hands but



little, and causing the fluid to last longer, while producing as good an effect upon the tissues. The spray-tube, in order to accomplish this, should be of small calibre. Dr. Weir states that if he wishes the solution to come up in smaller quantity he compresses the rubber tube. I think it is better, however, to have a finer tube, the same end being reached with much less trouble. Always be careful to see that the safety valve is right before you use it.

We will now turn our attention to the "antiseptic gauze." It is made of very coarse muslin, a sort of *cheese-cloth*, which is prepared in the following manner: Seven parts of common resin and five parts of paraffine are to be melted together over a water-bath, and one part of carbolic acid added. The latter should be slowly and carefully stirred in. Into this mixture the cloth should be dipped until thoroughly saturated, heated up to a certain degree of temperature, again thoroughly immersed in the mixture, folded and pressed sufficiently to squeeze out any excess of the compound.

There is one great objection to the use of this gauze if you get it in the stores—it is expensive, costing from ten to fifteen cents per yard. If you make it yourself in large quantities, it will cost but from four to five cents per yard. The imported gauze costs in single pieces from fourteen to fifteen cents per yard, while in quantity it can be had for from eleven to twelve cents. As considerable is used in each dressing, the cost is something to be considered.

It should be kept rolled up in a thick piece of brown paper. The resin and paraffine are used for the purpose of holding the acid firmly fixed in the meshes of the cloth and preventing its evaporation, which would certainly occur without them. This prepared gauze is used for covering wounds and making bandages for dressings.

Another material used is the Mackintosh cloth. It is an imported article and consists of cloth on one side and rubber on the other. It has a strong odor of carbolic acid, and is used to protect the parts from the atmosphere. Before using it, hold it up to the light and determine whether or not it contains any holes, for even a small pin-hole through it is liable to cause an unpleasant failure of the whole plan. A piece of rubber cloth, or rubber tissue, in fact anything of the kind will answer equally well. This, however, is supplied a little cheaper than the rubber tissue, and is, on that account, generally used.

There is another article used, known as Mr. Lister's "protective oil-silk." Both sides of it should be coated with a thin layer of copal varnish, and then covered over with a mixture consisting of one part dextrine, two parts starch, and sixteen parts of the 1—20 solution of carbolic acid. This is allowed to dry on the oil-silk. What is it for? It is called protective oil silk and is used to protect the wound from the action of the carbolic acid, for while this acid is all powerful in destroying germs, it will, if left in contact with the parts too long, prevent union or healing. Carbolic acid is only meant to come in direct contact with surface during the operation or while dressing it afterwards. A small piece of this silk laid over the wound protects it from the action of the gauze, which is laid above it. The rea-

son that dextrine &c., are used is to enable it to become uniformly moistened when dipped in a watery solution.

In addition to the Mackintosh cloth and oil-silk, we must have some other appliances. Foremost amongst these in Mr. Lister's treatment, is rubber tubing. It is kept in open wounds for the purpose of drainage.

There are three sizes of this tubing, and it is used in this way: A piece of the tubing with a number of holes cut in its side is placed in the wound with one end just protruding from between the lips. To keep the tube from slipping either in or out it is a good plan to pass a thread and needle, previously carbolized, through the tube and skin, thus stitching it in for the first few days. This can be easily done while the patient is still under the influence of the anæsthetic, or a better way is to pass a thread through the end of the tube and fasten the thread to the patient's body, at some distance from the wound, by a piece of adhesive plaster. Unless you resort to some such expedient you will have trouble in keeping the tube in place.

These tubes, as I have already told you, are for the purpose of maintaining free drainage of the wound. If there is much discharge the parts should be daily cleansed with the 1-40 solution. If, however, the wound is doing nicely there is no need of this, it being simply necessary to cut off the tubing, piece by piece, as it is pushed from the wound by granulations until the last portion is reached, when you will remove it.

In introducing a drainage tube, it is always best to make a counter opening, if you can, so that you may have two openings through which to pass it. Mr. Lister has, lately, been using-cat gut ligatures and pieces of horse hair, instead of a drainage tube. These were first thoroughly saturated with carbolic acid and then drawn through the wound, a little bundle of horse-hair is easily retained, and, after a little time separates so that it can be easily removed one or two hairs at a time.

Another thing very necessary to the accomplishment of a perfect result, is to be able to do away with ligatures; for if there is any foreign body in the wound, and a ligature is unquestionable such, it will excite inflammation generally, and produce irritation always. Therefore in all wounds where we try to get union by the first intention, we do away, as much as possible, with ligatures. Acupressure was the first step in this direction, torsion the second, and last and best of all, the cat-gut ligature.

They are thoroughly saturated with a mixture of carbolic acid, (one part dissolved in one tenth part it's weight of water and five parts of olive oil. They should be left in soak for two or three months. It is better to think, to buy them already prepared, and save yourself this trouble. They come in two or three different sizes. Their great advantage lies in the fact that after you tie them you can cut both ends off short and leave the knot in the wound, for the animal substance soon shrinks and dissolves, producing no irritation whatever. In cases where you do not care to apply antiseptic measures, the plain cat-gut ligature behaves in the same manner.



In the operation for simultaneous ligation of the common carotid and sub-clavian arteries, which I performed about a year ago, I tied both vessels with this material. This procedure was very strongly objected to by some of the surgeons who were present. I tied them both very carefully and was particular to tie the square and not the surgeons knot, in order that the ligature might hold well. I then cut off both ends and left the knots in the wound. They caused no trouble whatever, and were never heard of again. I have never had a case of secondary hæmorrhage following the use of this material.

Sometimes it is necessary to use silk for sutures. They should be passed through a compound consisting of one part of carbolic acid to ten parts of melted wax, and dried with a towel, by which means any superfluous material is removed. For sutures they are much better than cat-gut, as the latter soon melts and allows the wound to gap.

Mr. Lister also uses what he calls the "safety pins," which are so made that their ends will not penetrate the Mackintosh cloth, and allow germs to reach the wound. This shows how carefully he acts upon the idea that the air is deadly poison to the wound, and that it must, consequently, be thoroughly excluded from the parts. So strongly is he impressed with this idea that he says "a single pin-hole made in the Mackintosh cloth, might destroy the patient's life."

So much, then, Gentlemen, for the materials used in applying Mr. Lister's method to the treatment of open wounds.

At the next lecture I will describe in detail the manner in which these materials are used.

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## HOSPITAL RECORDS.

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### PRESBYTERIAN HOSPITAL, NEW YORK.

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Reported by ALBERTO LACAYO, M.D.

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#### GOUT, RENAL CIRRHOSIS, FACIAL ERYSIPELAS AND DEATH.—SERVICE OF DR. HADDEN.

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John Timmons.—married.—æet. 46.—England.—Park-keeper.

*Family History.*—Father kept a tavern in England, and was in the habit of drinking quantities of malt and spirituous liquors. Had frequent and violent attacks of gout in big toe and foot. Died æt. 70. Mother still living and in good health.

*Past History.*—Came to the United States about twenty-one years ago. Worked in iron foundries for eight years, then obtained position as game-keeper at Central Park, which he has kept ever since. Has, for years, been in the habit of taking three or four drinks of whiskey or brandy a day. Four or five years ago, after exposure, he suffered from rheumatic attacks, lasting several days at a time. Had severe pain and swelling of the knee and elbow joints. Two years ago pain



commenced in the joints of his fingers. There was swelling, soreness, and the deposition of chalky matter in the finger joints and helix of the ear. Some of the finger joints opened spontaneously, and discharged white, chalky matter. Pain came in paroxysms, and it and the swelling usually subsided in from four to six hours. The last attack of this kind occurred about five weeks before admission.

*Present Condition.*—Stout, well built, ruddy-faced Englishman. Complains of no pain, but great weakness, especially in the knees. Some discomfort in small of back. Eyesight has gradually failed him in the past year. Has no œdema, headache, epistaxis or marked diuresis, nor has he been troubled in this way in the past. There is a slight deposit of chalky material about the metatarso-phalangeal articulation of great toe of left foot. In the helix of each ear there are small gouty nodules. The tissues of almost all the joints of the hands are infiltrated with this material, especially the metacarpo-phalangeal joints of the little fingers. The skin over the joints is of a bright red color, and over the metacarpo-phalangeal joint of the little finger of the left hand, there is a small opening from which oozes some whitish matter, which, under the microscope, proves to be some pus mixed with a large amount of urate of soda. The urine, which is of low gravity, contains considerable granular and atrophied renal epithelium, and a few small hyaline casts. There is but a trace of albumen.

*April 24th, '75.*—Ord. propylamine gtts, ij. The urine, about 30 oz. in amount, contained a few small hyaline casts, and a trace of albumen. Urea, 15.76 grains to the oz. of urine.

*April 27th, '75.*—No improvement in the pain and swelling of the joints. Two very severe chills this p. m. Great pain in the left ear. Stopped propylamine.

*April 28th, '75.*—Ord. potass iodid, 3 ij.  
 Vin. colch. sem. 3 j.  
 Inf. gentian co, 5 ij.

M.

Cap. 3 j q. 3 hor.

Pain in small of back with frequent micturition. Ear much swollen and of a dusky hue; evidently erysipelas. Ord.

Acid carbolic	3 i. }	Use on ear.
Oleic acid	5 i. }	

Temp. 101.5° F. Ferri. chlorid M. xx. t. i. d.

*April 29th, '75.*—Ear about the same. Great pain in it during the night. No casts in the urine. Urea 5.36 grains to oz. of urine; amt. urine in twenty-four hours, 22 oz.

*April 30th, '75.*—Acid carbolic discontinued, and cold water dressings substituted.

Ord. quiniæ sulphat. gr. iv.

Pulv. ipecac. co. gr. x., at night.

*May 1st, '75.*—Erysipelas plainly marked and spreading rapidly, over face and scalp. Pulse weak. P't. very low. T. 103.6°.

*May 4th, '75.*—Delirious. Both eyes closed. Serum exuding from left cheek. An ulceration, somewhat blood stained, on right cheek.

*May 6th, '75.*—Refused, in his wild delirium, to take any nourishment for past two days. Died, this p. m., from exhaustion.

At the autopsy twelve hours after death, the kidneys were found to be granular and contracted. The capsule was quite adherent in places, and tore off pieces of renal substance in being removed. The cortical portion was greatly diminished, and in its tubes and those of the pyramids, were found numerous deposits of the urate of soda. The sheaf-like crystals of this substance were also found in the spaces between the tubules. Throughout, the renal epithelium was granular, atrophied, and broken down, in some places completely filling the tubules as dark granular masses. There was an enormous amount of fibrous tissue everywhere. Small cysts existed here and there. Small hyaline casts, such as had been found in the urine, were present in some of the tubules. The walls of the arteries were somewhat hypertrophied, and the arteries themselves apparently dilated.

The heart was slightly hypertrophied.

[This case is one that is worthy of more than passing notice, as its history furnishes us with many points of interest. To those who believe that gout and rheumatism may and do exist in the same person at the same time, or that the one affection alternates with the other, this history furnishes an interesting study.

It is a question whether the first attack of joint trouble, which occurred five years before admission to hospital, was the primary manifestation of the gout, or a true attack of rheumatism. If the latter, it is certainly a rare occurrence, and one, if we accept the teachings of Garrod, which are undoubtedly sound, viz. the entire absence of uric acid in the blood in rheumatism, and its presence in abundance in gout, that needs some peculiarly severe exciting cause to explain the rapid appearance of the peculiar *materies morbi* of the gout, which followed closely upon the heels of the so-called rheumatism.

If, on the contrary, we accept the inflammation of the knee and elbow joints as the primary manifestation of the gout, we have a very unusual seat for its occurrence. He seems to have had but little trouble with the big toe, which is the usual point for the disease to first show itself. When appearing first in some other joint there is, almost without exception, some predisposing cause, as weakness of the part or parts from disease or from injury, recent or old. Although no such injury could here be determined, I think we may safely eliminate the rheumatism, and call the attack one of acute gout, affecting the knee and elbow. The man's family history, age and habits, all point to gout, and the conclusion is certainly justified by the characteristics of that disease, which showed themselves at a later date.

A second point of interest is the condition of the kidneys—cirrhosis far advanced. If not an exciting cause, the daily use of strong liquor was certainly a predisposing cause of the renal malady, and it seems that the gouty trouble had been under headway long enough to produce this alteration in the kidney structure. Indeed, there are those who believe that a gouty diathesis may manifest itself only in this form of renal degeneration; of this, however, there is no proof.

As is usual in these cases, there was no œdema, the heart's force



and action being good. The urine seems to have been secreted in normal amount up to within a few days of death. This and the fact that the eyesight was in fair condition, seems to be due to the slight hypertrophy of the heart, and the fair condition of the arteries.

When he first came to the hospital, he was passing about a normal amount of urea (504.32 grains) in the twenty-four hours. Later, the amount fell to about 129 grains, although erysipelas was well under headway, and the heart's action not particularly weakened. The attending fever did not, as is usual, increase the amount of albumen.

Death from erysipelas in this form and degree of renal degeneration, without any uræmic symptoms, is not common, though it does occur.

In conclusion, it is a very rare occurrence to find crystals of the urate of soda deposited *between* the renal tubules. H. H. K.]

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## PERISCOPE.

### COLLABORATORS.

#### *Dermatology:*

HENRY G. PIFFARD, M.D.

#### *Diseases of the Nervous System:*

EDWARD C. SEGUIN, M.D.

#### *Diseases of Women and Children:*

FRANK P. FOSTER, M.D.

#### *General Surgery:*

EDWARD J. BIRMINGHAM, M.D.

#### *Genito-Urinary Disease and Syphilis:*

ROBERT W. TAYLOR, M.D.

#### *Materia Medica and Therapeutics:*

FREDERICK A. LYONS, M.D.

#### *Ophthalmology and Otology:*

SAMUEL B. ST. JOHN, M.D.

#### *Orthopedic Surgery:*

NEWTON M. SHAFFER, M.D.

#### *Practical Medicine:*

E. DARWIN HUDSON, JR., M.D.

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## INTRA-VENOUS INJECTION OF MILK AS A SUBSTITUTE FOR TRANSFUSION OF BLOOD.

Dr. T. Gaillard Thomas read a most interesting and valuable paper on this subject before the New York Academy of Medicine, on the evening of April 18th, 1878.—After referring briefly to the operation of transfusion of blood, and calling attention to the insecure position which it occupied practically, he passed to the consideration of substituting cow's milk for blood in the operation of transfusion. He called attention to the fact that although milk and blood were not homogeneous fluids, still there was not such a marked difference between chyle and milk, and the former was introduced directly into the blood as a normal physiological process. The operation was first performed by Dr. Hodder, of Toronto, about 1850, who employed it three times in the treatment of collapse in Asiatic cholera. Next Dr. J. W. Howe, of this city injected six ounces of goat's milk into the cephalic vein in a case of phthisis, but with no benefit to the patient. Dr. H. now made some experiments upon animals. He injected cows milk into the veins of five dogs, and they all died. Next came the experiments of Dr. Eugene Dupuy, which were made at the suggestion of Dr. Thomas, and which proved that milk could be injected without any baneful results. In these experiments it was



found that cases of intra-venous injection of milk which had been removed from the cow for an hour or two as had that used in Dr. Howe's cases invariably proved fatal, while the injection of perfectly fresh milk was followed by marked benefit. The method employed by Dr. Thomas may be best illustrated by relating briefly one of his cases:—A healthy cow was driven into the yard of the hospital, and eight and a half ounces of milk drawn from her udder into a porcelain dish surrounded with warm water was permitted to flow slowly into the median basilic vein of the patient, from a glass funnel, to which was attached a rubber tube and a suitable nozzle to be introduced into the opening in the blood-vessel. A rigor followed the operation; the temperature rose to 104° F., but these symptoms soon passed off, and the patient, who was moribund at the time of the operation, rallied, and left the hospital in about 3 weeks. Dr. T. has employed it in two cases since, making in all seven injections, and from his experience arrives at the following conclusions:

1. Injection of milk into the circulation in place of blood is a perfectly feasible, safe, and legitimate operation.
2. None but healthy milk, drawn from the udder of the cow within a few minutes of its introduction into the circulation, should be employed. It should be tested by litmus paper, and if found to be acid, should be made alkaline by the addition of carbonate of soda.
3. A glass funnel, with a rubber tube and a suitable pipe attached, was much better and safer than a more elaborate apparatus.
4. Intra-venous injection of milk was an infinitely easier operation to perform than transfusion of blood.
5. Intra-venous injection of milk, like that of blood, was commonly followed by a chill and rapid rise in temperature, but these symptoms soon subsided and were replaced by a great improvement in the general condition of the patient.
6. He would not limit lacteal injections to cases in which profuse and exhausting hemorrhage had occurred, but recommend their use in certain cases of typhoid fever, pneumonia, cholera, etc.

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### EARLY DIAGNOSIS OF STONE IN THE BLADDER.

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Mr. Teevan read a paper on this subject before the Harveian Society of London, on April 4th, 1878. On the arrival of a stone in the bladder, it usually soon gave notice of its advent. The larger the stone was permitted to grow, the more trouble it gave in its removal. If treated when small, it could be dealt with satisfactorily. As to the amount of pain produced, a small oxalate of lime calculus would give rise to much pain, while a large smooth stone behind the prostate caused but little suffering. When the stone was small, there was often difficulty in micturition, from the stone plugging the urethral orifice. This was more apt to happen with boys than with men. The amount of pain produced by stone varied with the habits of life. Hunting often elicited early evidence of the presence of stone, and so had saved many a life. The blood passed with stone was by drops at the end of

the act of micturition. Changes in the urine itself were of little value diagnostically. In children, incontinence of urine was often present with calculus ; here the stone passed into the prostatic portion of the urethra, and the urine trickled past it's side. Such incontinence was of great diagnostic importance. The family history and the patient's history were often of much service. Rarely more than four of the above symptoms were found together in any one case. In stone-cases, there was little complaint at nights ; while in prostatic cases the trouble at nights was usually great. Motion aggravated the symptoms and the pain in stone-cases, but did not affect stricture cases. A stiff bolster under the patient's buttocks was useful at the time of sounding. The finger in the rectum, and a short beaked sound, were of service. It was well to stand straight before the patient, and not on one side. By so doing, it was easier to bear in mind the three long prominences of the pelvis, viz. ; the sacrum and the tuberosities of the ischia. The PRESIDENT, Dr. Graily Hewitt, referred to the late Mr. Liston's diagnosis of asking the patient to jump down from a chair. The patient emphatically refused.—*British Medical Journal*.

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#### THE APPLICATION OF MAGNETS FOR THE REMOVAL OR DISPLACEMENT OF IRON AND STEEL CHIPS FROM WITHIN THE EYE.

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Mr. Macdonald McHardy read notes of a case illustrative of such use of magnets before the Clinical Society of London, on March 22d 1878. The patient, a man aged 31, when at work, was struck in the eye by a fragment of steel from the hammer he was using. When seen, twenty-four hours after, there was evidence of commencing iritis ; there was nothing in the vitreous ; the eye was less painful than on the night of the accident ; its tension normal. Atropine drops were prescribed. The next day there was no pain, and less congestion of the eye ; the pupil was well dilated, and allowed of detection of a sharply defined opacity on the interior surface of the lens in a downward-inward direction from the centre, the peripheral end being nearer to the margin of the dilated pupil. The cornea was almost normal. The atropine was continued, and absolute rest enjoined. The removal of the chip appeared to be imperative, lest it should gravitate downwards ; at the same time Mr. McHardy was unwilling to remove the lens, and he also thought if it were injured by the forceps it would not be easy to tell if any subsequent opacity of the lens were due to the original injury or to the operation. He, therefore, had a magnetic spatula constructed, intending to use it in connection with an electro-magnet. At the suggestion of Mr. Brudenell Carter the procedure was modified by employing a powerful bar magnet connected with two Grove's cells. Gradually approaching it to the front of the cornea, when it was four inches away, the chip sprang from the lens to the inner surface of the cornea, and fell into the anterior chamber, whence it was removed, together with a small portion of iris. A patch of opacity exactly



corresponding in size to the chip was left on the lens. Subsequently a cataract formed, and the injured lens became absorbed. The patient's vision, aided by a lens of twelve dioptries, is normal for distant objects. Reference was made to a paper by Dr. McKeown, in the *Dublin Journal of Medical Science*, for September, 1876, where three or four similar cases are recorded. Mr. Carter stated that the position of the fragment was such that any other attempt at its removal would have jeopardized the eye. If nothing had been done, the fragment would probably have fallen below the iris, and would have set up destructive inflammation; and any attempt at its removal by forceps would certainly have injured the lens. By withdrawing it from its bed and bringing it to the front of the iris, the magnet had obviated these difficulties.—*British Medical Journal*.

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### NEWS ITEMS AND NOTES.

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**The Shrill Voice of American Women.**—Is ascribed by the Rev. E. E. Hale, to the custom of requiring little girls to "read up," as it is called, in our large schools. The teachers expect a child of five to fill with her voice a room fifteen feet high and fifty feet square; as a consequence the child changes her low sweet home voice to the school scream; and in the course of time the school scream displaces the natural voice. The necessity of "speaking up" in recitation, so as to be heard across a large or noisy room, might be added as a cause of spoiled voices. That the school-room has this tendency may be noted any day in the extreme "clamor cry" of female teachers. We have known not a few sweet-voiced young ladies to acquire the discordant school marm voice very rapidly after taking charge of a large school-room; and possibly the little girls may acquire something of the tone by unconsciously imitating their teachers.—*Scientific American*.

**Death from Fright.**—The *British Med. Jour.* records the following very extraordinary case of death from fright. A female carrier by some means fell off her cart on the highway; and sustained rather severe injuries. She was conveyed to a house in the neighborhood, and the hostess received such a shock, from seeing the bleeding and bruised condition of the woman, that she died shortly afterwards from the effects of the fright.

**Itemizing Accounts.**—The *Louisville Med. News* publishes the following bill, which it says was actually rendered in Owen Co., Ky. and remarks.—"The baleful influences of specialism had probably not reached the neighborhood in which the services were rendered at the time the bill was made out, some years ago."

	————— to ————— Dr. :
To seventeen visits, to —————	\$8.50
To preaching funeral sermon	1.50
To shaving corpse	10
	—————
	\$10.10



**Bottling Air for Future Examination.**—During the Centennial summer samples of air were collected on various occasions upon the exhibition grounds at Philadelphia, and in the different buildings; also in this city, in Brooklyn, Hoboken, and on many of the Adirondack mountains, with a view to transmitting them to the chemists of 1976, to determine whether the earth's atmosphere is undergoing change. That the atmosphere has undergone enormous changes since the earlier geological ages is beyond a doubt. The present question is whether such changes are still slowly going on, and what their nature may be. The ordinary statement that the air has an invariable composition is not strictly true, since samples of air collected at different times and in different places are never found to be absolutely identical. The difference may be slight, but an apparently insignificant decrease in the percentage of oxygen becomes of grave importance when the deficiency, as is usually the case, is made up of less beneficial elements.—*Scientific American*.

**Russian Soldier's Bread.**—An analysis of the bread issued to Russian troops in Bulgaria, showed that it contained nineteen per cent. of saw dust and fourteen per cent. of sand.

**New Disease among Wool Sorters.**—Dr. Bell, of England, has directed attention to a new disease among wool sorters, which has been developed since the introduction of mohair and alpaca into the trade. Sudden and unaccountable deaths took place among the workmen, which at length became so frequent as to create alarm. Eminent medical and scientific men have been consulted, and post mortem examinations made, but the cause and nature of the disease were not satisfactorily explained. The symptoms of a typical case might be summarized as follows: No rigor, thirst, pain, vomiting, nor purging; no expectoration, quick breathing, great exhaustion, weak rapid pulse, clear mind, extremities cold, perspiration clammy, gradually decreasing temperature, death in fifteen to twenty-four hours. Dr. Bell attributes the disease to the inhalation of a septic poison produced by the decomposition of animal matter in damaged bales, producing septicæmia.

**A New Sense.**—M. E. Cyon has sent a note to the French Academy, in which he claims that the eighth pair of cerebral nerves contains two nerves of entirely distinct senses—the auditory nerve, and the nerve of space (*Raumnerve*). He regards the latter as the source of all our ideas of extension, and of three dimensions of space.—*Med. and Surg. Rep.*

**Trial of Endurance.**—Of "trials of endurance" now so much in vogue the latest is that undertaken by Mr. Murphy, of Kern, California, who talked incessantly for twenty-four hours, with a rest of five seconds in each hour, for the purpose of taking a drink of whiskey. At the conclusion of his task, Murphy fell from his chair, but whether this was the result of exhaustion or of intoxication, could not be determined.

**Notice.**—Subscribers and advertisers are notified not to pay to Walter Ireland any moneys for subscriptions or advertisements due this journal, as he has no longer any authority to act for us. Remittances should be made directly to this office, or accounts may be settled with any duly authorized agent.

**A Phenomenal Dose of Morphine.**—Dr. J. H. Thompson, of Goshen, N. Y., has sent us the following, which is not without interest. "Yesterday I witnessed the taking, by a woman in a drug store, of thirty-seven grains of sulphate of morphine. She is a gypsy-appearing, sal-low complexioned female; fleshy; seemingly about fifty years of age, and apparently in the enjoyment of good health. Though not a permanent resident, she is well known here by the druggists, who are well acquainted with her practice of purchasing, and taking on the occasion of purchase, incredible quantities of tincture of opium or morphine. She states that the amount above indicated is her usual dose every other day, when available. The drug produces no visible effects upon her.

**The Obstetrical Gazette.**—This is the title of a new monthly journal to be devoted to obstetrics, and the diseases of women and children. It will be published in Cincinnati and will be edited by E. B. Stevens, M.D., for eighteen years editor of the *Cincinnati Lancet and Observer*. The first number will be issued in July, and the subscription has been placed at \$3 per year.

**Pregnancy at Eight Years.**—The *Gazette Hebdomadaire* reports a case of extraordinary precocity in a girl eight years of age. She was born fully developed, and had hair on the pubes, menstruated at four years of age, and was seduced and became pregnant at eight. The pregnancy resulted in a mole containing a well characterized embryo. The father was a hopeful of 13 years.

**The Women's Hospital.**—Drs. J. E. Janvrin and H. Goldthwaite have been appointed assistant surgeons to the Women's Hospital, on the staff of Dr. Bozeman. No better selection could have been made.

**Diagnosis of Pregnancy.**—Dr. Goodell calls attention to the following sign of pregnancy:—"When the neck of the uterus appears to you as hard as the end of your nose, pregnancy should not exist; if it appear to you as soft as your lips, the uterus probably contains a foetus.

#### Proportion of Physicians to the Population :

Country.	Population.	No. of Physicians.	Proportion.
United States,	44,874,814	62,383	1 in 600
France,	36,100,000	19,902	1 in 1,814
Great Britain,	32,412,010	19,385	1 in 1,672
Germany,	41,060,695	13,686	1 in 3,000
Austria,	35,904,435	14,361	1 in 2,500
Canada,	3,575,577	2,998	1 in 1,193

# THE HOSPITAL GAZETTE

AND

## ARCHIVES OF CLINICAL SURGERY.

A WEEKLY JOURNAL OF MEDICINE, SURGERY AND THE COLLATERAL SCIENCES.

EDITED BY

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### EDITORIAL.

#### THE UNUSUAL IN MEDICINE.

It has been said that every nation at some period of its existence has a besetting sin that gives to its people certain peculiarities that are distinctive. We say sin, because it always comes about, that, though in the end, working to a certain extent to the good of mankind in general, it always proved decidedly harmful to the people amongst whom it existed. Whether this be so or not, for we have no time to discuss the matter fully now, we, of the present day certainly have our failings; and one more prominent, perhaps, than the rest.

It is the fact that we are very curious, very credulous, and very easily humbugged. As, for the production of bacteria or the hatching of the eggs of the "blow fly," it is necessary that the conditions favoring their production should be present, so, for the production of human frauds, two-legged blow flies, it is necessary that the minds of a people where they are to exist, should contain the elements favorable to their production. The mind of the average American is, certainly, in just such a condition, and, as a consequence, we have and have had our Barnum and his "*What Is It*," our Cardiff Giant, our minds



readers, our cancer plant, our Homeopaths, our blue glass cures and our thousand-and-one thimble-riggers, whom we have confidently allowed to humbug us, paying handsomely for the privilege.

This much to show how the mind of man, especially that of the American, is essentially curious. There seems to be a constant longing to find something odd, something strange, something "out of the usual run." We are a people intensely interested in the marvelous, a people in search of physical and metaphysical five-leaf clovers.

Medical men, though there are many of us loth to believe it, are only human. The mind, possibly possessing some hereditary taint, that is constantly surrounded and acted upon by other minds filled with this longing to meet with or discover something strange, must of necessity become more or less affected with the same desire, and a two or three years course in a medical college is by no means sufficient to alter its tendencies and make it purely scientific. Is it any wonder, then, that there are Barnums in our profession, or that we carry with us in our every-day practice, in our scientific work, in our thoughts, this very element of curiosity that was our constant companion until we undertook our profession?

Were this peculiarity confined to the gentlemen high up in our ranks, and, like a lady's pet poodle, kept for individual amusement, it would work us less harm. The fact is, however, that the most infatuated are those in the middle and lower ranks. A cursory glance at the contents of the medical journals of the present day, or a few moments listening to the conversation of two medical men reveals to us very plainly that, some of us at least, are sacrificing the essential for the purpose of enjoying the unusual.

Students and physicians will put themselves to considerable trouble in order to see some unusual operation, that it is probable most of them will never see performed again, and almost certainly never perform themselves, while they neglect to see and study closely many operations that are really of more importance to them, though less interesting. We are becoming sadly callous to the necessity of attending closely and carefully to details. They are so small, so common place so uninteresting, we plead. How by thus drudging through life, attending to little things, can we discover great things; how thus become Brights or Jenners? Take care of the pennies and the dollars will take care of themselves," so look out for details and great things will come of it.

Let this very unscientific craving for the unusual, the marvelous, that exists in its highest form amongst the ignorant, be checked and the neglect of lesser things, which attention to it entails, be more carefully looked after, our profession is already filled with brilliant dreamers, somnambulists who walk through life with the eyes of their common sense closed fast, men who stand one third on mental terra firma and two thirds in the clouds. We need no more of these. We want less of the theoretical, less of the unusual in our journals and our conversation, aye, in our work; and more, much more that is practical. When this becomes the rule we shall accomplish more and better scientific work, and give the people physicians who know their business.

It is true that a knowledge of the unusual is not without its good points. It serves to fix in our minds the usual. This we do not deny, nor that its usefulness lies in this alone. It would, however, be folly to attempt to learn all we need know by first finding out what is unusual. The moral that we try to teach is this—Do not neglect the small things of importance and known usefulness, for a knowledge of the unusual, however interesting it may be.

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## LECTURES.

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### TWO LECTURES ON LISTER'S ANTISEPTIC METHOD OF TREATING SURGICAL INJURIES.

Delivered at the College of Physicians and Surgeons, New York.

BY

JAMES L. LITTLE, M.D.

Lecturer on Operative Surgery and Surgical Dressings in the College of Physicians and Surgeons; New York. Professor of Surgery in the Medical Department of the University of Vermont. Etc.,

[Reported for THE HOSPITAL GAZETTE.]

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#### LECTURE II.

GENTLEMEN:—In order to successfully practice Mr. Lister's Antiseptic Method, it is necessary that we should believe, or act as if we believed, the atmosphere to be loaded with germs that are poisonous to open wounds, and, moreover, that the vitality of such germs may be destroyed by a proper use of antiseptics. By keeping these facts in mind, and endeavoring to follow Lister's directions to the letter, we will accomplish results hitherto unparalleled in the annals of surgery.

I am, as you can see, a firm believer in Mr. Lister's method of treatment, and was so persuaded by seeing results from it that I had never seen before. For the last twelve years Mr. Lister has been working out his plans to perfection. The first attempt he made was to use carbolic acid in the dressing of an abscess. Having applied it to the surface on a piece of lint, he raised the edge of the latter, opened the sac and let the pus drain out thoroughly.

After this he began to use the spray, then dressings on tin-foil, and finally reached the point that seems to be as near perfection as possible, i. e., his present method. Mr. Lister was recently called to fill the chair of Surgery in London in place of Sir William Fergusson, who lately died. At the time when he came to London there were but few Surgeons who either believed or practised his method, and as a consequence, his first operation in this way, was attended by many men eminent in the profession, who were anxious to witness, and ready to condemn it. A patient with simple fracture of the patella was brought into the amphitheatre, and etherized. Prof. Lister laid open the joint, cleaned it out, wired the bony fragments together, made an opening for the drainage tube, inserted it, and closed the

wound. All procedures were of course carried out after his method. The patient fully recovered, the temperature not having at any time gone above  $99^{\circ}$ .

As you well know, an opening into the knee-joint, was, up to a very late date, an exceedingly dangerous matter. Even a small pen-knife puncture in this situation has often brought about a fatal result, and we had come to consider such openings as serious as wounds of the abdomen. Nevertheless, in this case, Prof. Lister not only cut down and exposed the parts, but having wired the fragments, left a drainage tube in the joint and the patient recovered with no rise in temperature and an excellent joint. Gentlemen, such results are simply unparalleled.

I wish, for a few moments to call your attention to all the materials used in performing an operation according to Prof. Lister's method. We must have.

- 1st. A steam spray producer.
- 2nd. A solution of carbolic acid, 1—20
- 3rd. A solution of carbolic acid, 1—40
- 4th. Antiseptic gauze.
- 5th. A piece of Mackintosh cloth or rubber tissue.
- 6th. Draining tubes. If you fail to have these, soft catheters will do. If you have neither, a few shreds of horse hair will answer the purpose.
- 7th. Bandages made of antiseptic gauze.
- 8th. Cat-gut ligatures.
- 9th. Carbolized waxed ligatures.

These are the paraphernalia necessary to perform an operation after the Lister method. In addition all surgical instruments commonly used in other operations, are here employed. Looking over the list of additions to an ordinary operation you may think that they must of a surety interfere with the rapid and proper performance of the operation. This, however, is not the case after you are once thoroughly familiar with their uses, the operation becoming as simple and easy as when performed without them.

The following is the method carried out by Mr. Lister in performing any important operation. First, have on hand all the articles that I have named, being especially sure that your spray apparatus is in good working order. It is better to have two, in case one gives out. You next send your assistant to the house, have the table prepared, and the sponges and instruments placed in the 1—20 carbolic acid solution. The patient being anaesthetised your assistants and yourself prepare for the operation. Your hands should be first washed with soap and water, taking care to cleanse the nails thoroughly with a brush. They should then be dipped in the 1—20 solution, and the patient's wound or the parts upon which you are about to operate, sponged off with the same, after being also washed with soap and water.

Afterwards your 1—40 solution comes into play, one or two basins of it should be on hand. Into this your sponges and instruments are to be dipped during the operation. For the sponges and instruments



soup-plates or the old fashioned delf pie-plates will be found very convenient.

When the operator is ready the spray should be started. The apparatus should be in the hands of a careful assistant whose duty it is to keep the cloud of spray constantly falling on the wound, never for a moment directing it elsewhere. As the surgeon changes his position, so should the assistant, so that he may not be interfered with. If the operation is to last long some support will be needed for the spray producer, if not, it is best for the assistant to hold it himself.

During the operation, the instruments that have been used should be carefully wiped and replaced in the carbolic solution. Some of you may think that all these precautions are quite unnecessary, but let me tell you, Gentlemen, that it is only by carrying out fully and carefully these details, that the best results are obtained. These spray producers are very unpleasant to use, for they throw the spray in all directions; it gets in your face and mouth, and benumbs your hands. Still this does not justify us in dispensing with the spray altogether, as some surgeons have done. Moreover, the surgeons who have neglected to use it, have failed to get such results as I have described to you; results that are quite easy of attainment, if Mr. Lister's most excellent rules are followed out in detail.

During the operation a cat-gut ligature may be needed, one or two should be taken from the bottle where they are kept and placed in the Carbolic Solution 1—20 and left there until wanted. They should be about a foot in length. When needed, one should be handed the gentleman who is to tie the artery. He ties it, snips off both ends of the ligature and lets the knot remain in the wound.

Another thing—during the operation the solution in which your sponges have been cleansed will soon become very turbid. It is not necessary to throw this out and add fresh fluid, for a thorough squeezing out of the sponges is all that is necessary, before you use them again. “It is *surgically pure*” says Mr. Lister, “as long as it contains a sufficient quantity of carbolic acid.”

The operation being completed, the drainage tube should be inserted if necessary and the parts brought together with either cat-gut or carbolized silk sutures. The former should never be used where there is, or is liable to be much tension, for they are apt to melt away in a short time. If there has been much oozing during the operation, a carbolized sponge should be placed in the wound as a compress, and left there until the next day. The rest of the dressings I will describe in a few moments.

Let me call your attention now, gentlemen, to the manner in which a wound should be treated when it has been exposed for a longer or shorter period to the atmosphere, and the germs it contains. Suppose you have a compound fracture. Air has certainly found access to the tissues, and with implicit faith in the germ theory, we at once proceed to disinfect the parts, or, in other words, to put them in an antiseptic condition.

The usual treatment of such a condition is a strong argument in

favor of Mr. Lister's method. You have been taught that if a person suffers from a simple fracture anywhere, be it single or multiple, if there is no external opening, nothing need be feared, so far as suppuration is concerned. Though the swelling be great, it will soon go down, the serum be absorbed, and union of the fragments and healing of lacerated tissues take place without the formation of pus. But if, with the fracture, you also have an external wound, viz. a compound fracture, the prognosis is very different, unless you succeed by immediately closing the wound, in converting it into a simple fracture, free suppuration will take place, and the pus may burrow about in every direction, erysipelas or pyæmia may result, and death end the story. All this simply because air was admitted to the lacerated tissues.

The prognosis between a simple and compound fracture, is, as I have already said, very different; the former very good, the latter very grave indeed. If, therefore, we can by any treatment whatsoever give to the compound fracture the same prognosis as to the simple, we are undoubtedly doing a great work. This is the very thing Mr. Lister aims to accomplish, and succeeds in doing with his method of treatment.

To do this the wound should be first thoroughly washed out with the 1-20 solution of carbolic acid. A common Davidson's syringe will answer all practical purposes, and if unable with any of its nozzles to reach every part, a flexible catheter, previously thoroughly steeped in carbolic acid solution may be passed in, and the wound be carefully and fully injected, so that all parts are washed with the solution. In this manner the wound has been put in an antiseptic condition. All this, if possible, should be done under the spray, so that while the dressings are being applied, no germs may enter.

It is in just this way, gentlemen, that the most surprising results have been produced. For the past ten years, probably, certainly for the past eight, we have been applying this principle in our hospitals, to the treatment of such injuries, only it has been done less thoroughly. The wound was washed out with a carbolic acid solution, not always fully, however, and then protected from the atmosphere with some simple dressing, such as lint soaked in carbolized oil. Lacerated wounds are brought into an antiseptic condition by washing them thoroughly with the 1-20 solution.

Now, gentlemen, I will describe the manner of applying the dressings after an operation, antiseptically performed, or after a compound fracture or lacerated wound has been brought into an antiseptic condition, by washing out with the 1-20 solution. You should always do your dressings under the spray. This is very important. After the wound has been brought together, and the hæmorrhage checked, and, if necessary, a drainage tube inserted; you must take a single piece of protective oil silk, previously immersed in the 1-40 solution, and simply lay it over the wound. It should be large enough to cover the wound; over this should be laid one or two thicknesses of the prepared gauze, thoroughly saturated with the 1-40 solution. This is to destroy any germs that may have lodged upon the surface of the subsequent dressings. The part is now covered with from six

to eight layers of the gauze, previously prepared with a piece of the Mackintosh cloth an inch less in diameter all round, placed underneath the upper layer. The smooth surface of the Mackintosh cloth should be turned toward the wound. These should be retained in position by a roller bandage made of the same antiseptic gauze. The eight layers of gauze, together with the Mackintosh cloth, should be large enough to extend a good distance beyond the wound in all directions. For instance, as I show you on this mannikin, if the wound to be dressed is just below the elbow, the dressing should be long enough to extend some distance above the elbow joint; and down, covering in the hand; and sufficiently wide to envelop the limb. The last dressing can be secured with the "safety pins," taking care that they do not pierce the Mackintosh cloth.

The reason we use so much dressing is for full protection, and so that we need not dress the wound often; not oftener than once in three, four or five days; the rule being to keep the dressing on until the discharge finds its way to the outside. As soon as this occurs, the dressing should be changed. In our hospitals, the moment this takes place, even if at night, the house surgeon is called up to redress it. Sometimes the number of dressings are so few that the surgeons task is comparatively light,

During the first twenty-four hours there is usually a very extensive discharge of serum from the surface of the wound; so great, indeed, that it may even in this time saturate all the dressings. This being the case, it is of course necessary to again dress it. As I have already said, if the wound is large, it is best to put on a very thick dressing. *You should not disturb a dressing unless there is pain, an oozing through at some point, or a rise in temperature.*

The fact that there are cavities in the wound, in some cases, which will fill with serum, shows how necessary a drainage tube is. The use of the drainage tube may, however, be carried to excess. In several amputations of the breast I did not consider this necessary. I simply brought the cut surfaces accurately together by means of compresses and applied Lister's dressings. They healed very nicely. Where this can be done there is no need of a drainage tube. If this cannot be done, by all means, use a drainage tube, cutting a hole in the oil-silk through which it may pass.

This matter of the drainage tube is of such importance, that Mr. Lister claims great results from its use; the wound being thoroughly drained by it. Where there are accumulations of pus and serum there is an elevation of temperature, and the surrounding parts soon become inflamed.

Sometimes you can leave on the dressings a week, ten days, or even two weeks at a time, and often when you think it necessary to renew the applications, you are agreeably surprised to find the wound healed. I have already told you how you can know when the wound needs redressing.

In making your after-dressings you should have everything ready; gauze, another piece of Mackintosh cloth, bandages, and the carbolic solution 1-40. The spray apparatus should be in perfect order, and



so held as to throw the spray into every little pouch and crevice of the wound; in fact, so that it shall reach *every* part of it. The dressing should be gradually removed until you come to the last layer. If everything looks well and there is no discharge, simply put on fresh layers of gauze and a piece of Mackintosh cloth. If, however, there is pain and an elevation of temperature, it is necessary to remove all the dressings under spray, examine the parts closely, and put on fresh dressing throughout.

You will find a tendency for the drainage tube to slip into the wound. How to prevent this I told you in my last lecture. The drainage tube should be allowed to remain in until the second or third dressing, if there is any discharge. If not, take it out. If so, it is well to wash the wound thoroughly with carbolic solution and re-introduce the tube. Mr. Lister has said, however, that unless there is some evidence of putrefaction going on in the cavity there is no need of washing it out. How can we determine that such changes are taking place? The piece of oil-silk lying next the wound is the "tell-tale," the danger signal, for if decomposition has taken place, and sulphuretted hydrogen or any bad gases are there generated, this oil-silk becomes discolored, and tells us plainly that the antiseptic method has failed. This being the case, you must at once inject the wound with the strong carbolic solution thus trying to get it back to its original condition, and renew the dressing.

If, during an operation or dressing, the spray gives out, it is best to have a piece of gauze on hand which you dip in the carbolic solution, and immediately throw over the wound, until your apparatus is in working order again, or another has been procured. Thus you protect the parts from the atmosphere.

A word now about wounds that have existed for some length of time. Suppose we have an old ulcer of the leg to deal with. Mr. Lister does not consider the carbolic acid dressing alone sufficient in these cases. He uses a solution of the chloride of zinc 1 to 12, which he paints over the ulcer with a brush. The pain is very intense, but does not last long. After the wound is thoroughly cauterized in this way, Mr. Lister applies his usual dressing for wounds, under-spray.

In operating for necrosis or caries, after exposing the sinuses, you should thoroughly cauterize them by injecting the zinc solution into them. You may then proceed to dress the wound in the usual antiseptic manner. I cannot urge upon you too strongly the necessity for carrying out fully all these little details. I might state in conclusion, gentlemen, that Prot. Volkmann of Halle, has used in his clinic for some months past, thymol solution, in place of carbolic acid. This solution is made of the strength of one part thymol to 1000 parts of water. The formula as given by Dr. W. T. Bull of this city, is as follows:

			Grammes
Thymol,	℥ss		1.0
Alcohol,	℥ij	or	10.00
Glycerine,	℥ss	or	20.00
Aq.,	℥xxxvj	or	1000.0

It is claimed that this solution does not irritate the surface of the wound, and consequently the "protective oil-silk" may be dispensed with. The gauze is made in the same way as with carbolic acid, except that spermaceti is used in place of paraffine. The proportions are 1000 parts of gauze, 500 spermaceti, 50 of resin and 16 of thymol.

The disagreeable odor of carbolic acid is entirely avoided by this dressing. This substance is now being tried in the New York Hospital. I have not yet had an opportunity of using it.

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## CLINICAL REMARKS ON A CASE OF THORACIC ANEURISM (?)

Delivered at Bellevue Hospital, New York.

BY

ALFRED L. LOOMIS, M. D.

Professor of Pathology and Practice of Medicine in the Medical Department of the University of New York.

[Reported for THE HOSPITAL GAZETTE.]

This patient states that she has a tumor in the chest. She complains of trouble in swallowing, and says that she first noticed it about a year and a half ago. She can feel something obstructing the food and preventing its easy passage to the stomach. She also says that her voice has changed, it formerly being louder and not so hoarse. She has had a cough since the commencement of the difficulty, and likewise had a pain in the chest from the first, which has continued ever since. The symptoms have decreased since she went into a hospital, which is about eleven months ago, but up to that time they had steadily become worse. The difficulty in swallowing, she thinks, is somewhat better.

Previous to her present illness she often had neuralgia in the head. She also had rheumatism in the joints. Never had sore throat, but once had a rash over the body, which occurred about sixteen years ago. At the same time she lost her hair. She did not have rheumatism at that time: this occurred about six or seven years later. It was worse at night, but the trouble was not located in the shafts of the bones, the pain being limited to the joints. She has never had any children, and was married eighteen years ago. The rash and the falling of the hair occurred about three or four years after marriage.

On examining the chest of this woman, you notice a little prominence, but it is not very well marked. The question would immediately come up between aneurism and a mediastinal tumor. Difficulty in swallowing is one of the rarest primary symptoms of aneurism. It usually comes later on, after the tumor is well developed.

I remember one case, however, in which it was the only symptom, and death occurred from a rupture of the sac into the œsophagus. In that case the aneurismal tumor was developed in a peculiar position.

The ascending part of the arch of the aorta had enlarged backward against the œsophagus.

On percussion, we find dullness over an area extending from about the middle of the clavicle on the right to the same distance on the other side.

I find the upper part of the sternum evidently thickened and I cannot get my finger behind that bone. There seems to be some mass developed behind the bone, and the more I press my finger to go downward, the more it is carried backward as though there were something closely attached to the back of the sternum, and carrying the finger back toward the trachea.

On auscultation, a murmur is heard at the junction of the cartilage of the second rib with the sternum on the right side, which is not heard at the base of the heart. This murmur which is not harsh in character, but rather soft, might be produced by pressure. There is an indistinct pulsation. There is no difference in the radial arteries.

We here have some symptoms of aneurism, with a history of gradual pressure on the œsophagus and trachea. The symptoms seem, however, to be less than they were before, as she states that there has been some improvement during the last year. All this, however, is possible and there still may be an aneurism. These considerations though, would lead us away from aneurism. I do not positively assert that there is no aneurism, I am only guarding my diagnosis.

That which leads me to doubt the existence of an aneurism is the fact that, as I pass my finger behind the sternum I find it thickened, and something attached to it which presses my finger upward and backward and does not allow it to pass down behind the bone. From this, and also from the fact that she is apparently improving, and that all the symptoms, the murmur and pulsation included, may be produced by pressure exerted by a mediastinal tumor, I am led to hold my diagnosis in abeyance till further developments make the case more clear.

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## ORIGINAL ARTICLES.

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### SPASMODIC CROUP—PULMONARY ŒDEMA—DEATH.

165

H. H. KANE, M. D.

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Amy A, aet. 17, mos. N. Y., female.

*Family History*.—Grandparents living. Father a large, well built, healthy blonde. Mother of a decidedly nervous temperament; otherwise perfectly healthy. Neither lung trouble, brain or venereal disease on either side, so far as known.

*Past History*.—Child weak and anæmic from birth, although tenderly and judiciously cared for. Had a similar attack about a year



ago, which was pronounced by a regular physician to be spasmodic croup and which yielded readily to treatment.

On the evening of the 11th of October, the mother drove to Babylon, a distance of ten miles, taking both children with her. They did not get back until 9 P. M. The night was "raw" and cold, and the little one, though well wrapped up, coughed considerably on the way back. Once home she was thoroughly warmed and put to bed. Though feverish and restless almost all night, she awoke on the morning of the 12th inst. and seemed almost as well as usual.

About 11 A. M. she managed to get hold of a bottle of alcohol from which she took a swallow. She at once made outcry and was hurriedly given some syr. ipecac, and soon vomited, seeming quite relieved. At 1 P. M. she nursed well, and also eat a little potato. About 2 P. M. she began to complain of her throat and chest, constantly putting up her hands and crying. She soon began to cough and about 4 P. M. a distinct crowing sound was heard with each inspiration. The cough and stridulous breathing were exactly like those of the attack of one year ago.

The child was put to bed and free diaphoresis established and kept up. Fearing a membrane in the throat the mother took a neighbor's advice and gave the child a quantity of lard and salt rubbed up together, to make it vomit. Warm water, some homeopathic pellets, and syr. scillæ were also given, by the advice of friends. The child getting no better, more of the lard and salt mixture was given, also some ipecac. The finger, handles of a spoon and a tooth brush were then thrust down the throat successively, partly to break up the membrane and partly to cause vomiting.

About 9 P. M. the dyspnœa increased and a rattling sound was heard in the lungs. The crowing sound was marked on both inspiration and expiration. The child was perspiring freely, but the mother considering that more vomiting would be of benefit, and the little one not responding to the other remedies, fresh warm urine was poured down its throat. She sank rapidly now and died about 11:45 P. M.

Dr. Hammil of Islip and myself were called about 11:30 P. M. but did not reach the house until after the child's death. We found it a small delicate child, very pale, lips bluish, and a pink, frothy fluid oozing from between the lips.

*Autopsy*—16 hr's. after death. Rigor mortis well marked.

*Thorax*—On opening the chest the lungs did not collapse, were everywhere of a pale bloodless appearance save at the lower and posterior parts of both, where there was some hypostatic congestion. On pressure or section a considerable quantity of frothy serum oozed from both lungs. No clots in pulmonary vessels.

Some reddening of bronchial mucous membrane. At points there were slight ecchymoses. Tubes contained much frothy fluid. Trachea normal. Larynx normal. No false membrane, and not the slightest redness or swelling of its mucous lining. Tonsils and back of pharynx normal.

*Heart*—Right auricle and ventricle contained considerable dark blood. No clots. Left auricle and ventricle contracted and empty.

*Abdomen*.—All organs normal except the stomach, the mucous membrane of which about the pyloric end and partway up the greater curvature was of a deep bluish red color and considerably softened.

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## HOSPITAL RECORDS.

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### CHARITY HOSPITAL, JERSEY CITY.

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Reported by DAVID McMICHAEL, M.D.

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#### CEREBRAL EMBOLI.—LEFT HEMIPLEGIA.—DEATH

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Joseph Ragge. — aet. 47. — Italy. — Single. — Silk-weaver.

Was quite well up to three months ago, at which time he commenced to have frontal and occipital headache. Ptosis of the left eye then came on slowly. On the 27th of December, while at work at his loom, he fell from his chair to the floor. Did not lose consciousness. On trying to rise he found that the entire left side of his body was paralyzed. The ptosis disappeared and there was neither lingual paralysis, aphasia, nor any interference with deglutition. Sensation on the left side entirely lost. Had full control of bowels and bladder.

*On admission* Dec. 30th, sensation and motion on the left side were found impaired. Says that he has improved greatly since the attack. Is unable to walk without entire support for the left side. Right pupil contracted, left normal. Was ordered strychnia sulphat. with pyrophosphate of iron and dilute phosphoric acid.

*Jan. 3d.*—Motility of the left side somewhat improved. Temperature of the left leg somewhat below that of the right. Had a little headache in the evening and complained that the left leg felt very cold. It was somewhat benefitted by friction.

*Jan. 8th.*—Walks without support, though with tottering steps. Temperature of both legs the same. Appetite good. No headache for several days.

*Jan. 25th* 9 A. M. —Continued to improve until to-day, when, at the above time, he suddenly fell from his chair. On rising, he found the power in left arm and leg considerably diminished. Complained that the sensation of coldness had returned to the leg.

*Jan. 27th.*—At 1 A. M. he was taken with spasmodic contractions of left extremities, which lasted about an hour. Made frequent efforts to micturate, which were at first futile, but were soon relieved by a free gush of urine. Strychnia, iron, etc., stopped.

*Jan. 28th.*—Muscular twitchings have not returned. Passed urine through which the blood was diffused and in clots. Not understanding English well he could not comprehend or answer intelligibly questions regarding his sensations. Ordered quinia sulph. in moderate doses, and the application of an ice-bag to the perineum and hypogastrium.

During the night he tried to rise several times, and when restrained, laughed. At 5:30 the paralysis of the left side was not complete as he helped to raise himself. At 7:30 the muscles of this side were in a state of tonic contraction.

*Jan. 29th.*—Patient comatose. Both pupils contracted to the size of pin-head. Ordered sinapism to extremities and a stimulating enema.

9 *A. M.*—Condition about the same. Face and hands somewhat cyanotic. Body warm and moist, having been perspiring freely. Passed urine twice during the night. Pulse 100. T. normal. At 10:10 patient suddenly stopped breathing for about one minute and the pulse at the wrist almost disappeared. Both pupils were well and uniformly dilated. Gaspd two or three times at long intervals and was thought to be dead.

At 10:15 began to gasp more frequently and then breathed regularly. Pulse came up to 100, and was distinct, though weak. Right pupil contracted; left dilated and irregular.

6 *P. M.*—Patient in same condition.

*Jan. 30.*—9 *A. M.* Condition unchanged since yesterday. Some slight evidence of consciousness when face is tickled. Occasional changes take place in the pupil. Pulse 78 and of moderate firmness. Resp. 18; more regular and with less stertor. Temp. 99°. After 12 *M.* he commenced to sink, and died at 4:30 *P. M.*

*Autopsy*, 40 hours after death. Rigor mortis fairly well marked. Body extremely well nourished. Incision in median line showed considerable adipose tissue in parietes of trunk.

*Lungs* deeply congested and oedematous. *Heart, spleen, kidneys and liver*, normal.

*Brain*—Weight, 52 oz. Deep congestion over surface of right hemisphere with discoloration from transfused blood. The cerebral and basilar arteries contained little nodular bodies, that on section proved to be emboli. They were always found at a point of bifurcation and extended into both branches. They were quite firm, non-adherent to the tube, and of a white, yellowish-white and pinkish color. Connected with each choroid plexus posteriorly was a whitish body, about the size of a garden bean, one of them when cut into, let out a watery fluid.

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## GOOD SAMARITAN HOSPITAL, NEW YORK.

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REPORT OF SURGEON FOR THREE AND A-HALF MONTHS ENDING  
MAY 1ST 1878.

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NEW YORK, May 2d, 1878.

*To the Board of Managers of the Good Samaritan Hospital:*

GENTLEMEN:—I beg to submit to you the following condensed report of the service in the Out-Patient Department, since the opening on the 16th of January, 1878. During the brief time that has elapsed, and notwithstanding the fact that your institution is but little known, either to the medical profession or to the laity, the fact has been satis-



factorily demonstrated that it is destined to occupy a prominent place among the many noble charities of which our city is justly proud. During the three months and a-half that the Out-patient Department has been opened it has afforded treatment to no less than 69 patients, classified as follows :

*Nationality.*—Ireland, 25 ; United States, 24 ; Germany, 9 ; England, 5 ; Canada, 2 ; France, 1 ; Sweden, 1 ; Italy, 1 ; Cuba, 1. Total, 69.

*Age.*—Below 10 years, 2 ; from 10 to 20, 5 ; 20 to 30, 19 ; 30 to 40, 19 ; 40 to 50, 14 ; 50 to 60, 6 ; 60 to 70, 3 ; over 70, 1. Total, 69.

*Sex.*—Males, 53 ; females, 16. Total, 69.

*Duration of Disease.*—Less than 1 year, 24 ; 1 year, 9 ; 2 years, 11 ; 3 years, 6 ; 5 years, 6 ; 7 years, 2 ; 8 years, 1 ; 10 years, 9 ; 14 years, 1. Total, 69.

*Results of Treatment.*—Cured or relieved, 60 ; sent to hospital, 4 ; left service, 4 ; discharged incurable, 1. Total, 69.

*Classification of Diseases.*—Abscess, 1 ; condylomata syphilitic, 2 ; habitual constipation, 3 ; coccygitis, 1 ; fissure 1 ; external fistula, 1 ; complete fistula, 10 ; recto-vaginal fistula, 1 ; fatty tumor of buttock, 1 ; fish-bone imbedded in rectal wall, 1 ; impacted feces, 1 ; incontinence of feces, 1 ; external hæmorrhoids, 12 ; internal hæmorrhoids, 8 ; mucous patches, 3 ; neuralgia, 1 ; lacerated perineum, 1 ; pediculi, 1 ; enlarged prostate, 2 ; prolapsus, 2 ; pruritus, 4 ; polypus, 2 ; stricture, 1 ; ulceration, 4. No diagnosis made, the patients not having returned after receiving instructions as to cleanliness, 4. Total, 69.

*Operations.*—The following operations have been performed, either at the Out-Patient Department, or at the patients' houses :—Ligation of internal hæmorrhoids, 4 ; fistula in ano, 7 ; removal of external hæmorrhoidal tabs, 5 ; removal of fatty tumor of buttock, 1 ; removal of fish-bone from rectal wall, 1 ; removal of impacted feces, 1 ; removal of polypus, 2 ; opening abscess, 1 ; incising fissure, 1. Total, 23.

Owing to your wise adoption of the "Provident System," the medical attendants have been enabled to refuse treatment to several patients whom they considered were not entitled to gratuitous advice. The number of patients applying for treatment with a family income of between 10 and 15 dollars per week has been very small, so that the amount realized from this source during 3 1-2 months has only been one dollar. This amount has been received from three patients, all of whom seemed to contribute their mite for the benefit of the institution, willingly.

EDWARD J. BERMINGHAM, M.D., Surgeon.

## PERISCOPE.

### COLLABORATORS.

*Dermatology:*  
HENRY G. PIFFARD, M.D.  
*Diseases of the Nervous System:*  
EDWARD C. SEGUIN, M.D.  
*Diseases of Women and Children:*  
FRANK P. FOSTER, M.D.  
*General Surgery:*  
EDWARD J. BIRMINGHAM, M.D.

*Practical Medicine:*  
E. DARWIN HUDSON, JR., M.D.

*Genito-Urinary Disease and Syphilis:*  
ROBERT W. TAYLOR, M.D.  
*Materia Medica and Therapeutics:*  
FREDERICK A. LYONS, M.D.  
*Ophthalmology and Otology:*  
SAMUEL B. ST. JOHN, M.D.  
*Orthopedic Surgery:*  
NEWTON M. SHAFFER, M.D.

## HYPODERMIC INJECTIONS OF CAMPHOR IN INSOMNIA.

N. E. Wittich, assistant physician to the Lunatic Asylum of Heppenheim, near Tübingen, reports *Berlin, Klin, Wochenschrift* No. 11, (1878) success in the treatment of the insomnia of female lunatics, by camphor. He gives from  $1\frac{1}{2}$  to 3 grains in wafers by the mouth. He has also employed hypodermically a solution of 1 part camphor in 10 parts of oil of sweet almonds with even better results. W. does not state how much of this solution he injects, but the quantity is probably the same as that used internally. He asserts that no irritation or inflammation follows this procedure, even after repeated injections. He recommends that the needle used be rather large. E. C. S.

## A PROPERTY OF SULPHATE OF QUININE NOT WELL KNOWN.

This property consists in the modification it causes on suppurating surfaces when it is applied locally. The injection of a solution of 60 centigrammes of sulphate of quinine in 60 to 100 grammes of distilled water is very advantageous in the treatment of empyema. This same injection is efficacious in gonorrhœa, and an ointment of sulphate of quinine exercises a cicatrising action on wounds and chronic ulcers. The injections of quinine have the same action on suppurating cavities and fistulous tracts.—*Gazetta Medica Italiana.* F. A. L.

## RABUTEAU ON THE ACTION OF FERROCYANIDE OF SODIUM ON THE ELIMINATION OF UREA.

M. Rabuteau in a communication to the *Société de Biologie* reports the results of his researches on the action of the ferrocyanide of sodium, which has been recommended as a diuretic. He concludes from his experiments that the salt is not diuretic, that it is eliminated without change, and moreover, the elimination is slow, it taking more than 80 hours for the elimination of 30 grammes of the salt.—*Gazette des Hôpitaux.* F. A. L.

## CORRESPONDENCE.

## SCIATIC DISLOCATION.

*Eds. Hosp. Gaz. & Arch. Clin. Surg.:*

I find that what I described in your journal of January 1st, 1873, as a "hitherto unrecognised symptom" of sciatic dislocation, had been recognised and well illustrated by Oscar H. Allis, M.D., one of the surgeons to the Presbyterian Hospital, in the *Philadelphia Medical Times*, of March 28th, 1874. I hasten to accord to that gentleman priority in presenting the subject to the profession.

Although I had had three cases illustrating the symptom, the first in the summer of 1871, and had demonstrated it to my classes every winter since, and had often spoken of it to my professional friends, yet Dr. Allis' paper had entirely escaped my attention.

In 1871 I was called to see a case of hip dislocation by Dr. J. W. Hadlock, in which I first recognised the symptom in connection with sciatic luxation. With my first manipulation I threw the head into the thyroid hole, by another, I dislodged it, but it slipped into the notch, but in taking this position it did so with such a thud that Dr. H. and myself imagined that the head was in the acetabulum. I extended the leg and found it of corresponding length with the other, but as soon as I removed the force, the deformity again occurred. This confused me as it had others before and since. I flexed the thighs upon the pelvis, and *the knee of the affected side sunk below the other one inch and a half*. The nature of the accident was then plain to me. After reducing the bone I went to my office and demonstrated the symptom with the skeleton to Dr. Hadlock.

In October, 1874, Captain Williamson came to me with a sciatic dislocation of nine weeks' standing. I demonstrated the symptom to my class and felt the head in the notch through the rectum as suggested by Squires. In attempting reduction I fractured the neck.

Again, in 1877, I treated a case of sciatic dislocation in a little boy. The symptom was well shown and recognised by my associates, Drs. N. Foster G. B. Orr, and Charles Anderson.

This is another illustration that one should not hurry into print with new discoveries, but as I had waited almost seven years after my first demonstration, and as "no author, so far as I had read, had called attention to the difference in the length of the dislocated limb when extended, and when flexed at a right angle with the pelvis," I thought that I had found "a hitherto unrecognised symptom."

That Dr. Allis' paper had been overlooked by others, will be seen by the fact that since my paper was published I have received letters from a number of distinguished surgeons, who, recognising the sign as new, assured me that it would hereafter be known as my test. It must, however, be called "*Allis' Test*," for it is apparent that he first, through the press, called the attention of the profession to this most valuable factor in determining the nature of obscure as well as of simple cases. Although my first patient was treated in 1871 and Dr. Allis' in 1872.

Respectfully,

W. W. DAWSON.

*Cincinnati, O., April 30, 1878.*



## ABOUT BOOKS.

*Modern Surgical Therapeutics; by George H. Naphcys, A.M., M.D., etc. Revised to the most recent date. Philadelphia: D. G. Brinton, 1878., pp. 587.*

This work, although chiefly a compilation, is in some respects something more than this. It claims to represent the teachings and practices of the most eminent surgeons of the day, as regards "the *therapeutics* of surgery in the stricter sense of the word, to gather their formulæ, \* \* \* \*, to systematize their therapeutical directions, and to set forth their specific treatment of surgical diseases and injuries."

Such a work, from its very nature, is one eminently suited to commend itself to the practitioner as a valuable work of reference. To have before him in a single volume, properly arranged and classified, the multitude of various and often opposing methods of treatment adopted by the most distinguished leaders of the profession, and which they have found from long and observing experience to be the most useful, is an advantage that cannot be easily estimated. The work occupies a field which hitherto has been empty.

There is no attempt made to reconcile different methods of treatment where these are opposed to one another, but they are given under the name of the authority by whom they are recommended, and the surgeon is left to select for himself, in accordance with his own views and experience. At the same time numerous resumés are made and these in most instances show clear and correct judgment, and moreover a vast amount of labor in collecting the materials from which conclusions are drawn.

A valuable feature of the work is the immense number of formulæ that are presented. A common objection to such formulæ, and one that very often carries with it considerable weight, is that their use is apt to lead to a routine practice in the treatment of disease, the surgeon confining himself to a number of stereotyped prescriptions and losing sight of varying conditions that often call for deviations from his usual rule, according to the exigencies of individual cases. This is too true, and when a man confines himself to such a set of formulæ he ceases to be a scientific practitioner and degenerates into a medical hack. In most cases, understanding the peculiar conditions of each individual case, and the principles of action of the remedies he wishes to use, it is preferable for the surgeon to make his formulæ extemporaneously, and thus follow a more scientific process. This is the great danger of all such collections of set prescriptions, and as there is always a greater or less tendency to fall into a fixed groove and follow a certain routine, we should all the more carefully endeavor to guard against it, and place obstacles in the way of such proclivities.

But on the other hand if we look at certain formulæ of this kind in the right light, extracting the principle involved from the mere form, they become useful aids in many cases. We know that certain remedies act very differently in combination with others than when they

are used alone, or in certain other combinations. To be able to obtain such effects, merely using the formulæ as examples, is one of the chief arts in therapeutics.

Then again some surgeons claim to obtain certain results from some specific agent or agents and others fail in the same cases, in many instances the failure being due to want of knowledge of the proper method of use or of combination. In such cases set formulæ are often useful.

Looking at them, then, from the proper point of view, and not slavishly following a certain prescription because it is recommended in a certain disease by a certain authority, such collections of formulæ as the present work contains are valuable. For the reasons above mentioned, "*Naphey's Surgical Therapeutics*" might be regarded in different lights by different individuals, some viewing the work with favor and others condemning the principles on which it is based, as unscientific in method, but on the whole, taking a proper two-sided survey, it must be considered as a work of great usefulness, and will undoubtedly become a favorite with the profession generally.

Its scope is large and it covers the entire field of surgical diseases. A brief condensation of the table of contents will serve to show how much ground it covers. I. Therapeutics of inflammation. II. Anæsthetics general and local. III. The dressing of wounds. (In this part is given a clear and concise detailed description of Lister's antiseptic method.) IV. The complications of wounds (erysipelas, gangrene, etc.) V. Special forms of wounds. VI. Lesions from heat and cold. VII. Lesions of the connective and muscular tissue. VIII. Lesions of the bones and joints. IX. Lesions of the organs of circulation. X. Lesions of the organs of digestion. XI. Lesions of the organs of urination. XII. Lesions of the organs of reproduction. XIII. Lesions of the organs of special sense; the nose, the eye, the ear. XIV. New growths, benign and malignant. XV. The treatment of scrofula. XVI. Diseases of the skin. XVII. Venereal diseases.

The authorities, whose methods of treatment are detailed, belong neither to one section nor one school, and are well known all over the world as exponents in their departments. On glancing over the index of authors we find no less than 650, very many of course, being referred to in more than one section.

The book is furnished with full and copious indices of authors remedies and diseases, and is printed on good paper, in excellent type.

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#### NEWS ITEMS AND NOTES.

**Suit for Malpractice in a Case of Fracture of the Femur.—Non-Suit.**—The following appeared in a daily paper entitled, *Advance and Press*, published at New Bloomfield, Perry Co., Pa., April, 1878:—"Jas. B. Weaver, by his father and next friend, Jonathan Weaver vs. Dr. M. B. Strickler. About the 10th of March, 1877, James B. Weaver, who is a boy of 8 years of age, sustained a fracture of the thigh bone

of his right leg while engaged in wrestling with his brother. Dr. M. B. Strickler was called in and adjusted the fracture, and treated his patient for a fracture of the thigh bone. The treatment it was alleged was not correct, and it was held that there was no fracture at the place treated for. A large number of the physicians of the county appeared on the stand as witnesses for the plaintiff, but their testimony failed to make out a case against defendant. Their testimony was to the effect that the leg was five-eighths of an inch short, and that it was an ordinary good job.

On the part of the defendant, Dr. Agnew, Professor of Surgery of the University of Pennsylvania, and Dr. Hunt, Surgeon of the Pennsylvania Hospital and Professor of Orthopædic Surgery, of Philadelphia, were called to the stand. They testified that they had made a thorough examination of the limb, that they found evidence of an oblique fracture extending from the knee joint to the upper third of the femur; they stated that on a strict measurement they found the fractured limb only five-eighths of an inch shorter than the other; that on requesting the boy to walk around the room in his stocking feet they did not discover any perceptible limp in the boy's gait. They also stated that they had measured the limbs of different persons and found a difference in length, where no fracture or injury had ever been sustained, and a boy of this place who never had a fracture or injury of limbs; and they found a difference of three-eighths of an inch. They said that the treatment was skillful and correct, and there was no deformity of the limb in this case beyond that usually resulting from such complicated fractures of this most difficult bone to treat when broken. On the conclusion of Dr. Agnew's testimony, the counsel for the defendant took a non-suit. W. A. Sponsler and Jeremiah Lyons, for plaintiff; W. N. Siebert, C. J. T. McIntire and J. E. Junkin, for defendant."

From a correspondence with Prof. Hunt, one of the witnesses for the defence, which has been shown to us, we learn that the facts as above reported are correct. There was some difference of opinion as to the exact point of the fracture. The limb was treated with only lateral, or coaptation splints. All agreed that it was about five-eighths of an inch shorter than the other. The boy alluded to in the report, whose limbs had not been broken, but in whom one limb was found to be 3-8 of an inch shorter than the other, was the brother of the lad whose thigh had been broken, and twelve years old. Profs. Agnew and Hunt, together with other surgeons, concurred in the result of this measurement, and when these facts, with others, were presented in court a non-suit became inevitable.

This is probably the first time in which the observation recently made by a number of careful observers\* of the frequent absence of symmetry in the opposite limbs of the same person, has been offered in court as a defense against a prosecution for malpractice. It is, no doubt, destined hereafter to occupy a conspicuous place in this class of cases.

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\*Chiefly through the efforts of Dr. Jarvis S. Wight, in a paper published in this journal, Feb'y, 1877, which has been extensively copied both in this country and abroad.



With the views which we entertain, however, of the proper treatment of such fractures, somewhat better results may, *in most cases*, be expected from other and more efficient methods. We speak now particularly of fractures of the thigh in children. Whether this limb was originally 5-8 of an inch shorter than the other, and whether, therefore, in this particular case a better result would have been possible, we are unable to say, and in our opinion the court was right in giving to the defendant the benefit of the doubt.

**Contagion by Mail.**—The London *Telegraph* has recently published a correspondent's letter, setting forth a remarkable instance of scarlet fever being communicated by a letter. A lady wrote to a friend to inform her that she was nursing her daughter, suffering from scarlatina. The friend, after reading and burning the letter, gave the envelope in which it was contained to one of her children to play with. Shortly after, the child became sick of the same disease, which the physician traced to his own satisfaction to the affected letter. It might be suggested that an examination into the prevalence of contagious maladies among Post Office employes would throw some light on the danger of a possibly infected mail. One letter capable of communicating scarlet fever or small pox would probably render every other missive in the same pouch equally dangerous as a disseminator of disease. At any rate it is on the safe side to send no communications from infected houses save those that are absolutely necessary, and these should be immediately burned. —*Scientific American*.

**Sickness in the Russian Army.**—That disease is often more fatal to an army than actual warfare is again strikingly illustrated by the latest accounts from the East. It appears that the Russians are dying at Erzeroum in large numbers. Drs. Ryan and Stokes assert that 21,000 Russians have succumbed to typhus fever during the last three months in the city and plain of Erzeroum. There is also much sickness amongst the Russians at San Stefano, owing to defective camp arrangements and the dirty habits of the troops. —*Med. Press & Cir.*

**A Remarkable Case of Morphine Tolerance by an Infant.**—Dr. J. L. Little reports (*Am. Jour. Obstet.*, April, 1878) a case where paregoric in small doses was administered to a child three weeks old, for the relief of suffering caused by an inflammation of the knee-joint. The child gradually bore larger and larger doses—the paregoric was changed to tr. opii, and this again to Magendie's solution. Soon the child obtained such a tolerance of this drug that, in a couple of months, from half a drachm to a drachm a day was necessary to quiet it. This state of things continued until *the amount consumed by the child, then less than eight months old, was two ounces of Magendie's solution in two or four days*. The dose was gradually diminished at the rate of about three drops per day, and at the time of making the report, but ten drops were given at bed-time. The child's appearance improved very much; it is intelligent, and weighs eighteen pounds.

# THE HOSPITAL GAZETTE

AND

## ARCHIVES OF CLINICAL SURGERY.

A WEEKLY JOURNAL OF MEDICINE, SURGERY AND THE COLLATERAL SCIENCES.

EDITED BY

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### LECTURES.

#### A CLINICAL LECTURE ON SOME RARE FORMS OF SKIN DISEASE.

Delivered at the University Hospital, Philadelphia.

BY

LOUIS A. DUHRING, M.D.,

Professor of Clinical Dermatology in the University of Pennsylvania Medical School.

[REPORTED FOR THE HOSPITAL GAZETTE.]

#### ELEPHANTIASIS ARABUM.

The patient is thirty years of age and unmarried. Her health was perfectly good until she was ten years old, when the glands in her axilla began to swell. They were poulticed and then lanced, but there was no discharge. This attack of adenitis confined her to her bed for a month. Shortly after her recovery her right arm below the elbow began to enlarge, and, in a day or so, became greatly swollen and very painful, the skin growing red and tense. These acute symptoms lasted only about a week, but recurred regularly once in every

few months ; each recurrence driving the symptoms further down the arm. At fifteen years of age she began to menstruate, and the attacks were postponed for a year ; then she was again subject to them at regular intervals. At first the local swelling subsided entirely between the attacks, but gradually the enlargement became permanent, and the limb increased in size with each succeeding year. In every instance, the attacks were ushered in by a chill, followed by fever.

The attack from which she is at present suffering, began about seven days ago. She tells me that she woke up in the morning with a headache and feelings of general *malaise*. Her arm at once grew swollen, stiff and painful, the skin assuming a dense red appearance. In the course of thirty-six hours bullae came on the wrist and between the fingers. The cuticle of the arm and hand desquamated rapidly, and the afflicted member grew more and more painful, red and hot.

The extended history which we have of this case, throws a great deal of light on the processes of this disease, although those processes are not so well defined, and their results not so well marked as is sometimes the case. To-day, the woman is convalescing. Her arm is still very painful as she holds it up thus, before you. The inflammatory induration, as you see, has not extended above the elbow, at least, but very slightly above it, for just at the elbow joint there is still a great deal of swelling. The arm illustrates the peculiar pinkish hue of the skin in the disease. This coloring is generally diffused over the whole surface. Towards the wrist the tissues have become very much hardened. Even now, that the acuteness of the attack is over, the hand is swollen out of all natural proportions. The fingers can be moved but slightly. The skin is hard, very thick, very glossy, and a deep pink in color. In fact the whole limb, below the elbow, is very much in the same condition as we should expect to find in severe erysipelas. Of course the woman can do no work while these attacks last.

I have not time to-day to give you in detail the history of the disease known as elephantiasis arabum—its causes, symptoms, pathology, diagnosis and treatment. Suffice it to say that in this country it is very rare. In India, Japan, and in fact throughout the far East, it is very common. You must be careful to draw the distinction between elephantiasis arabum and elephantiasis of the Grecian writers; i. e., elephantiasis graecorum. The latter disease is that generally called leprosy—the most baneful disease known to the Grecian writers. It was distinguished by fungous growths about the face and joints, and atrophies and droppings off of parts, leaving the unfortunate sufferers frightfully scarred and disfigured.

Elephantiasis arabum is an hypertrophy of the connective tissue—elephantiasis graecorum is a new formation, so you see they possess nothing in common. Elephantiasis arabum ordinarily affects the lower extremities. There have been two well-marked cases of it in the Pennsylvania Hospital quite recently. In one of these cases Dr. Thomas G. Morton performed the operation of nerve-section upon the afflicted limb, and so succeeded in effecting a permanent cure. I



have one other case in my wards at the Philadelphia Hospital at present. With these exceptions there have been but few examples of the disease in this city of late years. In the year when the University Hospital was first opened, there was a very marked case of scrotal elephantiasis arabum at Prof. John Neill's clinic. Dr. Neill removed from that man's scrotum a mass weighing between thirty-five and forty pounds.

It is easy to confound this disease with recurring erysipelas or with inflammatory disease of the skin, following the touch of poison ivy, etc. In the latter case there is generally found, upon questioning, to be a distinct history of poisoning, and once over, there will, of course, be no repetition of the symptoms. Here the disease has recurred regularly for twenty years. Between the attacks of recurrent erysipelas, the inflammation generally subsides entirely; in this disease the enlargement is permanent. Even in countries where this disease is common, it is rare to find it attacking the arm, much more is it the case in this country. I never remember to have seen a case like this before. The prognosis would be grave, here, even where it possible for something to be done to prevent the recurrence of the attacks. Various treatments with this purpose in view have been proposed. I have never placed much confidence in any of them. A celebrated Calcutta physician has spoken very highly of repeated doses of the iodide of potassium—the drug to be continued for weeks, or even for months. This woman has been upon no treatment whatsoever. I was afraid at first that she had been applying arnica (which only intensifies the pain and swelling) surreptitiously, but upon close inquiry, I found that such had not been the case. In one instance, which came under my notice, a hand poisoned by repeated applications of arnica, looked identically like this one.

#### ERYTHEMA NODOSUM.

This little boy presents the symptoms of a disease which I do not think any of you have seen here before. Like elephantiasis arabum, it is a disease very rare in Philadelphia. As far as I can gather, it is also very rare in New York and Boston.

I have made the little patient stand on the seat of this chair, and you can all see plainly these two—one on each leg—contusion-like lesions, on his shins. Looking at them leaves the impression that the child has fallen down and bruised his shins.

Some authorities consider this disease as entirely distinct from erythema multiformum, while others regard it as but a separate manifestation of the same disease. I am inclined to side with the latter form of belief, and to regard it as one of the same family to which erythema papulatum and tuberculosum belong.

These two isolated nodes on the lad's shins, when I examine them closely, are found to be hot, with central whitish spots. To-day, I see that the whitish spots have been replaced by greenish disks. These did not exist yesterday. It is a well known fact that all the erythematous diseases are associated with a play of colors. It runs from red to deeper red, to blue, purple, green, orange, yellow.

The boy first noticed the local spots of soreness three or four days ago. The disease rarely lasts over two or three weeks. The mother tells me that the child was slightly sick four or five days before the nodes made their appearance. Young subjects are very likely to have constitutional disturbances. The nodes come out suddenly, at night perhaps, on one or both legs or arms, occasionally on the forehead. They look so much like bruises that the mother seeing the child in the morning supposes he has bruised himself in falling out of bed. There is no limit to the number of nodes which may appear. I have seen as many as twenty lesions cropping out over legs, thighs and forearm. Whether the number be small or large the whole limb is generally swollen and is so hot and painful that the child can scarcely walk during the first few days of the attack. These acute symptoms do not last long, but the discoloration of the parts lingers in some cases through two or three weeks. This little fellow has improved vastly within the past day or so. When I last saw him it was only with the greatest difficulty that he could limp along.

The disease ordinarily appears in the spring-time. Occasionally I have known of its occurrence in the fall. With regard to the pathology of the affection we know but little. It is generally supposed to be an inflammation of hemorrhagic nature. A great many opinions have been expressed as to its cause. *Dermatitis contusiformis*, a name which I proposed several years ago, expresses very satisfactorily I think, the nature and local appearances of the disorder.

Treatment of course can be only palliative.

## CLINICAL REMARKS ON A CASE OF RHEUMATIC AFFECTION OF THE SHOULDER IN AN INFANT.

Delivered at the College of Physicians and Surgeons, New York.

BY

ABRAHAM JACOBI, M.D.

Clinical Professor of Diseases of Children.

[Reported for THE HOSPITAL GAZETTE.]

GENTLEMEN:—The baby that I now show you, is six months old, and up to last Sunday morning, which is three days ago, was quite well; at that time, when dressing the child, the mother noticed that it could not move its arm, and when she attempted to lift it, or caught hold of its hand, it cried from pain. It was unable to move the arm until yesterday, when again it had slight motion. The child has slept well since the commencement of the trouble, and did not cry when it was left alone, the pain only arising when any attempt was made to move it.

It appears then, from the history, that three days ago the child could not move its arm, and that any attempt to move it caused such pain as to make it cry. Now, what conditions would give rise to such symptoms? Something certainly occurred, and you might readily think of a number of accidents that might happen around the shoulder joint. It might perhaps at first be suggested to you that the



clavicle had been broken, and you proceed to a more thorough examination. The history however informs us that the loss of power of motion lasted only a short time, as the child soon recovered some of its ability. In fracture of the clavicle, on the other hand, the loss of power would have lasted at least eight or ten days.

Again, it might have fallen out of bed and hurt the shoulder joint, but there is no swelling nor ecchymosis, the remains of which certainly should still be seen, if such an accident had occurred. The right arm does indeed look a little larger than the left, but this often occurs in infants as well as in adults. It might be that the arm had been pulled strongly and the muscles strained, but the mother says that she is very careful, and as there are no signs of violence, and have been none, this is not very probable.

On questioning still further we find that the mother sleeps near a window which is sometimes left open, and the baby lies with the affected arm towards that side. It may be then that during the night it became uncovered and was exposed to a draught of cold air. There is nothing to be seen, and as the history points to a rheumatic origin, the greatest probability is that the exposure to cold was the cause of the difficulty. There is no change in the lower extremities.

You may have thought, gentlemen, that this is a somewhat trifling case, but it is interesting in the way of diagnosis. When I first looked at the child in the ante-room, in a cursory manner, while selecting the cases for the clinic, without examining carefully, my first impression was, that it was a case of essential paralysis of the upper extremity, but on hearing the history and looking over the child more thoroughly I changed my opinion. In such a case as this the diagnosis might be wrongly made, and I have no doubt that it often is erroneous, and I wished particularly by this example to impress upon you the necessity, in every case, of thoroughly examining and going into the history of your patient before rendering an opinion, no matter how trivial it may at first sight seem.

There is no change in this limb, no fracture or dislocation, although we have tried hard to find one.

Still another point that first induced me to believe that there was paralysis, was that the sound side offered more resistance to being moved, but there is not very much muscular power in a child like this, and the affected arm may feel more comfortable in not resisting force than in endeavoring to restrain motion. You would think that in rheumatic trouble it would be less painful to keep the limb quiet and to prevent all motion, and this is usually the case, but not always, as the muscular contractions in resisting the force, might give more pain than a passive state, allowing the arm to be moved.

As regards treatment there is scarcely anything to be said. The case will do very well if left entirely alone. It is probably neuralgic in character, and does not require active measures.

We ought not, however, to dismiss the case, without knowing that it might not turn out so well, as we have said, and that the prognosis might not be so favorable. A chronic arthritis or a progressive atrophy of the muscles in the neighborhood, such as sometimes oc-



curs in joint diseases might come on, and many cases of this description may be traced primarily to the occurrence of a strain or cold. All such colds, as they are called, are an affection of the peripheral nerves, and a true neuritis may result. The inflammation of the nerve may ascend or it may spread in both directions, to the periphery and the center, and a large number of cases of myelitis are due to peripheral trouble in the beginning. There may be no fever or general symptoms at first, but the disease may extend until all the symptoms of myelitis are developed. A peripheral origin is more common than a central one in most cases of myelitis.

## HOSPITAL RECORDS.

### ST. VINCENT'S HOSPITAL, NEW YORK.

REPORTED BY J. J. ULLOA Y GIRALT, M. D., HOUSE SURGEON.

#### ENCEPHALOID CANCER OF THE LEFT FEMUR.

K. M.,—aet. 28.—Ireland.—Admitted Oct. 24. '77.

*Family History.*—Very good.

*Past History.*—She never complained of any sickness previous to her present illness, with the exception of an attack of rheumatism, which occurred about three years ago, and from which she completely recovered. On the 21st of last June, she jumped out of a country wagon, and thinks she injured herself, as since then she has been unable to walk well, and has suffered from pain in the left limb, which extended from the knee to the middle of the thigh. About four weeks ago the pain extended to the hip, and has since been very severe, being worse at night.

*On Admission.*—A tumor, about the size of an orange, was observed at the middle of the left thigh. Patient said she never noticed any swelling previous to her jumping from the wagon, and she believes that this is the only cause of the tumor. Physical examination revealed no lesion of any of the viscera.

By Nov. 12th, the tumor had increased considerably, having extended from the middle of the thigh to the groin. The following are the measurements of the two thighs.

*Right Thigh.*—Circumference about the middle 19 inches.

*Left Thigh.*—Circumference over tumor 25 inches. About this time she began to complain of considerable pain and tenderness in the tumor.

Nov. 13th. — An exploratory puncture was made with an aspirator needle and nothing but a little blood was drawn off. Dr. Charles Phelps, the attending surgeon, called in consultation the medical and surgical staff of the hospital, and after a careful examination it was decided that it was a case of cancer of the femur, amputation at the hip-joint was advised, but as the patient refused to allow it, could be done but wait for the end.

Nov. 26.—Measurement over tumor 27½ inches.

*Dec. 10th.*—Measurement  $29\frac{1}{2}$  inches at this time there was considerable œdema of the limb below the tumor.

*Jan. 23rd.*—Tumor measured  $32\frac{1}{2}$  inches; œdema of both limbs.

*Feb. 12th.*—Tumor measured 35 inches.

*Mar. 19th.*—Circumference of diseased thigh 39 inches. Considerable œdema of the upper as well as the lower extremities. Patient greatly emaciated, and the cancerous cachexia well marked. The treatment since admission has been purely anodyne. Hypodermic injections of Magendie's sol. of morphia m. xv. were made in her arms morning and evening. The dose was gradually increased and lately she has had hypodermically,

at 8 A. M.	3 i.	Magendie's Solution.
1 P. M.	3 ss.	" "
5 P. M.	3 ss.	" "
9 P. M.	3 iss.	" "

or 3 iij.ss. in the 24 hours.

*Mar. 30th.*—An ulceration was noticed about the middle of the tumor. It discharged profusely and soon became gangrenous, the discharge becoming very offensive.

*April 2nd.*—Patient died.

*Autopsy.*—April 3rd I first made an incision in the long axis of the limb, and then two transverse ones at the upper and lower end of the thigh. I tried to dissect up the skin but found it impossible, as the cancerous mass was very soft, and adhered firmly to the integument. Considerable cancerous juice, the odor of which was very offensive, was constantly running. The cancerous mass extended from the lower fourth of thigh to Poupart's ligament.

Neither the muscles nor fascia were to be found, the cancer taking the place of everything. Mixed with it were clots of blood in different degrees of organization and a great number of bony concretions. Blood-vessels were abundant. Although I looked carefully for the femoral artery and vein, I could not find them. All that remained of the femur was the head, a small part of the anatomical neck and the lower fourth of the bone. The rest was completely destroyed.

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## ST. FRANCIS HOSPITAL, NEW YORK.

REPORTED BY W. H. HAYNES, M.D., ASSISTANT PHYSICIAN.

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### ACUTE ARTICULAR RHEUMATISM, UREMIA AND MASTITIS— RECOVERY.

This case was that of a girl aged seventeen, by occupation a domestic. Has a decidedly hereditary tendency to phthisis. Never seriously ill before, but subject to colds.

Her present sickness began three weeks ago with two attacks of syncope, followed by a general soreness, and swelling of the ankles and knees, attended with pain and heat. Went to bed. Symptoms increased in severity and extended to all the joints in her body. There was fever, vomiting, profuse sweating, and constipation of the

bowels. She had previously commenced coughing. Was put on treatment by her attending physician, with some relief.

When admitted she was fairly nourished but anæmic. Complained of general pain, more marked in her back and joints. The latter are swollen and their temperature is above normal. Temp.  $104^{\circ}$ ; P. 104 and a little weak. No appetite, tongue coated, bowels constipated, not having moved for several days. Voice low and husky. Has a cough with thick muco-purulent expectorations, and pain along the sternum on coughing. Urine diminished in quantity, very acid, of normal specific gravity, and loaded with urates. Has profuse sweats and cannot sleep owing to the pains and a harrassing cough. Did not complain of heart, and on examination it was found to be normal.

The diagnosis of acute articular rheumatism was made, and she was put upon the following:

R.

Acid cresotinic.	3 ij.
Sodæ bicarb.	3 iss.
Aquæ.	5 iv.

M.

Sig. Tablespoonful every two hours. This was commenced at 7 P. M. The next day at 1 P. M. her temperature was normal and she said that she had slept well during the early part of the morning, felt better and only had pain on extreme motion. The day following her temperature was normal and she felt so much relieved that she asked to sit up out of bed, which she was not allowed to do. Treatment changed to acid salicylic 3 ij. in the 24 hours.

The fourth day after admission she complained very much of headache and vertigo and would cry out when the slightest pressure was made on the right side of her chest. The nurse reported slight delirium at night. Stopped salicylic acid.

The next morning her temperature was  $99^{\circ}$ , pulse 96, and respirations 24. Was delirious last night and is slightly so now. Complains of pain over the entire body but especially marked on the right side. Speaks only in a whisper. Pupils normal. Right breast very painful, red and swollen as is also the surrounding tissue. Urine acid, 1.038 and contains 30% of albumen and some hæmatin. Ord. brisk cathartics, half drachm doses of potass bromid, and anodyne lotion to breast.

The following morning her temp. was  $100^{\circ}$  and her pulse 100. She had slept well and was quiet and rational. Has well developed mastitis of the right breast, without the formation of pus. This is the third attack of this kind that she has had during her present illness. The first occurred in the first week of the disease, and the second about ten days ago. No pain anywhere save in the breast, which was ordered to be poulticed, also ordered 24 doses of potass. bitart. every 4 hours. Takes more nourishment.

Two days later her urine was normal, and temp.  $100^{\circ}$ , in the morning. Sleeps and eats very well. Has no pain anywhere. Breast less swollen, red and tender: ordered, besides the potash.



grs. ij of cinchonidia sulph. t. i. d. In a few days her breast had almost resumed its natural size, and was normal in everything else except color, which was rapidly becoming so.

This case is an illustration of the plan of treatment pursued in the first medical division of this hospital, in all cases of acute rheumatism. First the use of cresotinic acid for the immediate abatement of all the symptoms, which it seems to accomplish more quickly than any other remedy, including salicylic acid. The following recent case is a better example of this fact than the one above cited:

A man aged twenty-nine, entered the hospital about 3 o'clock in the afternoon; suffering with well marked symptoms of general acute articular rheumatism. Having had only nine hours sleep in eleven days, and it being his first attack. He was immediately placed on this plan of treatment. The next morning he reported that he went to sleep about midnight and slept till noon, when communicated motions did not make him wince. He went on to complete recovery of perfect health rapidly.

This acid is obtained from the same basis as carbolic and salicylic acids, viz. coal tar. Authorities say its antiseptic power is greater than the other acids mentioned in this category. Its greater remedial action in acute rheumatism I think will be fully demonstrated in a paper, soon to appear, comparing the results obtained by the use of these remedies in different cases, by another member of our staff. Perhaps its trial in some other diseases will show its greater efficacy than the ordinary methods now employed, and increase its reputation. It was introduced, as a therapeutic agent, into this country through the efforts of Dr. C. H. Lellmann, one of the attending physicians to this hospital. The great drawback to its more extensive use is the price, costing more than five times as much as salicylic acid.

To counteract the too great depressing effect on the heart, noticed as one of the results from the use of this remedy in some cases, we are in the habit, where it is thought to be necessary, of giving at the same time a few drops of the tr. digitalis with each dose of the acid, or when this action has been marked in other cases, it has been added to the treatment.

An interesting point in the first case, was the recurring mastitis, which is not a common concomitant of this disease.

## TRANSLATIONS.

## DYSPEPSIA.

By

DR. C. F. KUNZE.

Translated from the German, for THE HOSPITAL GAZETTE,

PAUL H. KRETZSCHMAR, M.D. OF BROOKLYN, N. Y.

Dyspepsia means "difficult stomach digestion" and is, as such, one of the most common symptoms of anatomical changes which have taken place in the stomach, but it is also a symptom of conditions *in which the normal structure of the stomach is not altered or in which, with our present state of knowledge, we are unable to detect any structural changes.* In the following pages this second form of dyspepsia only will be considered, and it may be stated here, that just in proportion as our medical knowledge advances, the number of cases belonging to this class will diminish.

*Symptoms.*—The patients complain, especially after taking food, and sometimes only after they have eaten certain articles, *of a sensation of heaviness and fullness in the region of the stomach.* Real pain is not generally experienced. Often there is a nausea, occasionally vomiting, the stomach is bloated, *in most cases the appetite is diminished,* and, sometimes, patients have an entire lack of appetite for any kind of food. Some patients have a remarkable desire for highly spiced articles. *The stomach digestion is much slower than normal.* Percussion shows the presence of undigested food a long time after nourishment has been taken. The patient feels weary, he has no desire for mental or bodily work and often complains of a very severe "compressing" pain in the forehead, and in the occipital region. If vomiting occurs, the food is thrown up, sometimes hours after it has been taken, in an undigested state. Not unfrequently it is saturated with foul gases, as the product of decomposition which has taken place within the stomach. If the quantity of gas present is at all considerable the stomach presents a bloated condition, known as *flatulence* and it attempts to empty its gaseous contents by frequent eructations (ructus). Sometimes the matter vomited is of an acid reaction, depending on the presence of butyric and acetic acids. The abnormal formation of acid also gives rise to an unpleasant burning sensation in the oesophagus and pharynx (Pyrosis). The tongue is no certain criterion, in some cases it is thickly coated, in others it is entirely clean. In cases of dyspepsia of

\*The work from which this translation has been made is entitled "*Lehrbuch der Praktischen Medizin, mit besonderer Berücksichtigung der Pathologischen Anatomie und Histologie*," Leipzig, 1878. It is a work which is considered by competent judges to be in many respects superior to Niemeyer. It was first published in Germany in 1870, and has since been translated into French, Italian, Dutch, and Spanish, and has reached its third edition in Germany. Several chapters of the translation are now ready for the press, and we shall present them to our readers as opportunity offers.

short duration, caused by an overloaded condition of the stomach, or depending on the presence of indigestible food, great relief, and often permanent cure is obtained by free emesis. Not unfrequently, however, vomiting does not occur, the ingesta are not thrown up, but enter the small intestines and produce pain, cramps, rolling, flatulence and either diarrhœa, or—as is often found among children—obstinate constipation. Among children such a condition is often followed by fever and restlessness at night, by increased frequency of respiration and pulse, and even by general convulsions which may prove fatal.

In *chronic cases* of dyspepsia, mental despondency and hypochondria are frequently developed: the state of the patient's nutrition becomes impaired, emaciation takes place.

The unpleasant sensations of fullness and pressure in the region of the stomach become permanent, and the patient complains about them even while the stomach is empty. At that time the symptoms frequently depend on a condition of chronic gastric catarrh, which often develops during the course of dyspepsia.

*Etiology.*—Dyspepsia,—derangement of the digestive function of the stomach without any known structural changes—depends either on *ingesta*; or on a *disturbed condition of the general system*; or on *altered innervation*.

I. *Dyspepsia ab ingestis* is caused; a. by overloading the stomach with food, which by itself is not injurious, but interferes with proper digestion only by its *quantity*. To digest food properly, it is necessary that the quantity of food introduced stands in proportion to the digestive power of the stomach. If a larger quantity of food be introduced at once, the gastric juice is unable to digest all of it, the muscular action of the stomach becomes exhausted, the organ itself becomes debilitated, expanded, and the food remains longer in the stomach than normally.

b. By the introduction of articles, which are *indigestible*. All articles which cannot be acted upon by healthy gastric juice are to be considered as belonging to this class, viz: cartilage, tendons, tough meat generally, hard boiled albumen, etc.

c. By the introduction of articles, which either tend to *float away* or to *dilute* the gastric juice. Dyspepsia depending on this cause is often produced by drinking large quantities of cold or warm water in the morning—as has been recommended by Bock and others. To drink much cold water with the meals is not only injurious for its diluting effect on the gastric juice, but also because it diminishes the temperature of the stomach to such a degree as is incompatible with healthy digestion (Beaumont).

d. By the introduction of articles which influence the *chemical composition* of the gastric juice *unfavorably*. To this class belong all articles which prevent to a larger or smaller degree *fermentation*, viz: strong coffee, tea, alcoholic drinks etc; all articles which are easily transformed into *acetic, butyric or carbonic acids* carbo-hydrates or those which are previous to their introduction into the stomach in a condition of *partial decomposition*, viz: sour milk, sour lager beer,



mouldy wine, etc.; or finally those articles which are *almost entirely decomposed*, viz.: old cheese, bad meat, etc. If the food, after its arrival in the stomach, cannot be digested properly, and especially if acetic and butyric acids are formed freely, the gastric juice itself becomes converted into acetic and butyric acid and a deranged condition of the digestive apparatus is developed, which is known under the name of "*dyspepsia acida*." The secretion of these acids by the peptic glands themselves, as has been supposed in individual cases where their presence has been frequently observed, has not been proved physiologically. Conditions of the stomach peculiar to the individual have, however, a marked influence as to the predisposition to the formation of acetic and butyric acids from the food which has been introduced. This form of dyspepsia, due to the formation of acetic or butyric acids has nothing to do with an excessive formation of hydrochloric acid, which latter is a necessary constituent of the gastric juice and is *essential* for the digestion of food. It is a wide-spread mistake that the sour eructations of patients are due to the *excessive* formation of that kind of acid which enters into the formation of the gastric juice. The recent examinations of Leube and others show that stomach digestion depends on the presence of a certain quantity of hydrochloric acid, and that dyspepsia is much oftener caused by a deficiency of hydrochloric acid, than by an excess of it. Even in vomited matter of peculiarly acid smell hydrochloric acid is mostly wanting; the acid reaction being due to the presence of acetic or butyric, and not of hydrochloric acid. The question whether an increased quantity of hydrochloric acid in the gastric juice is injurious has not been determined as yet; it seems to me the only action it could have, would be to cause a too rapid stomach digestion.

Not unfrequently the gastric juice is observed to act in the contrary manner. It is sometimes of *alkaline reaction*, especially if large quantities of saliva are swallowed, as is found to be the case with great smokers or in cases of catarrh of the mouth and pharynx, gastric juice of alkaline reaction cannot perform its function and dyspepsia must follow.

II. *Dyspepsia depending on a deranged condition of the general system* is found to be present in *all diseases which are accompanied by well defined febrile movements*. Beaumont observed in such a condition the direct decrease and even the suppression of the gastric juice. It seems as if, in such cases, the more rapid retrograde metamorphosis depending upon the high temperature of the body, interferes with the production of gastric juice. Dyspepsia is frequently observed, and forms a very troublesome complication, in cases of rickets, scrofulosis, arthritis and diabetes, as a more or less constant symptom of the deranged condition of general nutrition. The relation which dyspepsia bears to the diseases mentioned, is not altogether understood as yet.

III. *Dyspepsia depending on an altered condition of innervation* is observed in cases of hypochondria, hysteria, homesickness, neuralgia, etc. The secretion of the gastric juice depends just as much on the nervous influence, as the secretion of saliva and many other functions

of the different organs. Cases of dyspepsia, following the continued use of opium or other narcotics, belong to this class, though there is in such cases a mechanical influence acting which should not be underestimated. From the use of the narcotics the peristaltic movements of the stomach become interfered with, lessened and sometimes lost altogether, food accumulates in the stomach, and not only causes a sensation of pressure and fullness, but also causes such conditions as were mentioned under "dyspepsia ab ingestis."

*Treatment.*—There is hardly any other morbid condition, where it is more essential to consider the *cause* of the disturbance than in dyspepsia. In a considerable number of cases the removal of the cause is followed by complete recovery, as may be readily seen in cases of "dyspepsia ab ingestis."

Aside from the detection of the cause of the functional disturbance, the regulation of the patient's diet is the most essential part of the treatment; permanent cure can never be brought about without it.

Generally speaking, the following rules in regard to diet in dyspeptic persons may be laid down:

I. *The patient's nourishment must consist of articles easy of digestion.* To this class of foods belong soups, prepared of starchy materials, beef tea,—provided it is not made too strong, and it does not contain much fat,—also milk, and especially buttermilk, raw or soft-boiled eggs, white of eggs hard-boiled are not nearly so quickly digested; furthermore, venison and the flesh of pigeons or fowls, some kinds of fish, smoked ham, if soft, white bread, etc. Of those articles which should never be served at the table of a dyspeptic person, the following may be mentioned: legumes, rye bread, cake, hard smoked ham, beef tea or any kind of meat with a great deal of fat, cheese, etc.

II. *Whenever the patient eats he should only take a small quantity at a time,* his stomach should never be entirely filled, he should never leave the table with feeling that his appetite is fully satisfied. To carefully regulate the quantity of food to be taken at one meal, is especially important with children, as they are, in most cases, entirely unable to judge as to the right quantity of food.

III. *The patient should only be allowed to eat again when the food taken before has been properly digested and left the stomach.* In adults, it takes from four to six hours for food of the average quality to be digested, in cases of dyspepsia it may require a much longer time. Infants should never be nursed at shorter intervals than every two hours.

IV. *The patient should live on plain food,* high living must be abandoned, and but few dishes should be served at a meal. He should avoid taking supper late at night, and should not go to bed with a full stomach.

If the stomach is *overloaded*, some remedy should be employed which favors the secretion of gastric juice, and which retards the decomposition of food in the stomach. It is an old, and in most cases, a good custom, to take a small quantity of alcoholic stimulant just after finishing a rich meal. Unfortunately this custom is often abused, people think they have a right to overload their stomachs because



they keep some good brandy in the house. Finally, the habitual overloading of the stomach, and the frequent use of alcoholic drinks, produce chronic gastric catarrh, often complicated by a catarrhal condition of the small intestines. It seems as if, after the introduction of very fat food, a small quantity of liquor assists in emulsifying the fatty material. The injurious habit of drinking large quantities of water must be abolished, and those who drink lukewarm water, fasting, to keep the bowels open, should consult a physician and leave it to him to correct the difficulty. I will only mention one instance which proves how much harm may be done by adopting the hydropathic method of regulating the movements of the bowels. Habitual constipation in females often depends on general anemia; the use of warm water, or of other laxatives, while temporarily relieving the obstruction of the bowels, always increases the primary lesion, while some *light iron preparation* or the use of *Pymont water* frequently relieves the secondary difficulty permanently, by improving the quality of the blood.

If deficiency of hydrochloric acid in the gastric juice causes the difficulty, it is well to administer it gtt. x: 120.0  $\frac{r}{iv}$  aquæ:  $\frac{r}{i}$  30.0 syr. simplic. one tablespoonful every two hours. If the food has undergone fermentation, the decomposed material should be removed from the stomach, either by means of the stomach pump, which is the best way, or by the use of emetics or laxatives. After the organ has been cleaned, some remedy should be employed to prevent the fermentation of food in the stomach. I like the use of sulphite of soda (2.0 to 5.0: 120.0 aquæ, a tablespoonful three or four times a day, or 20 drops of benzine in sweetened water, per dose, or of creosote (gtt. vj: 120.0, sweetened water, one tablespoonful every two hours.

The catarrhal symptoms which are often developed during the course of dyspepsia should be treated according to the rules laid down in the chapter on chronic gastric catarrh.\*

In *febrile diseases* we are but rarely able to treat the dyspepsia by itself, but the remedies which are to be employed against the principal disease should be selected with due consideration for the condition of the stomach. The physician should take care to select those pharmaceutical preparations which are easily assimilated. In cases of intermittent fever with dyspepsia, muriate of quinia is to be preferred to the sulphate of quinia on account of its being better borne by the stomach.

If the dyspepsia is due to *altered innervation*, and if a so-called irritable condition of the stomach is present—persistent vomiting of almost all the food taken, a dislike to any kind of nourishment—the use of narcotics with the view of diminishing the irritability of the organ is indicated—morph. murias, aqua hyro-cerasi, tr. nuc. vomic. . The digestive properties of the gastric juice—which is secreted in diminished quantity—should be strengthened by the administration of small quantities of muriatic (hydrochloric) acid. Fresh mountain air, moderate out-of-door exercise, repeated full baths and other means

\*Which we shall next present to our readers.—Ed.



to improve the general health of the patient, will assist in treating the gastric symptoms. Pepsinum porci in doses of 0.3 to 0.6 (5 to 10 grs.) with or without hydrochloric acid, to be taken three times a day just before eating, is often beneficial. Iron should *not be given in any form* as long as the digestive power of the stomach is very low. If the functional derangement of the stomach is considerably diminished, light iron-waters, such as Pymont, Driburg, Schmalbach, Elster may be given, but care should be taken not to administer them at too early a period. Even with a moderate degree of irritability, the stomach cannot bear any of the iron preparations or iron waters.—The bitter tonics are suitable in cases of torpid dyspepsia; I prefer to give sweet flagg, calumbo, quassia, or tr. gentian. comp. If there is no desire at all for nourishment, and if all sensibility of the stomach has been lost, I have frequently obtained beneficial results from moderate doses of "fruit ice"—not ice cream—and from small quantities of very old strong wine, to be taken with the meals. In cases of "nervous dyspepsia", however, no positive rule can be laid down, which would answer for all conditions. Certain essential indications—the regulation of the diet, etc., always should be observed, but besides that, it is necessary to individualize each patient, and there is a large field left open for careful "trials."

The capricious stomach often cannot be controlled by the most scientific treatment, and the disease sometimes yields to the most absurd remedies.

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## PERISCOPE.

### COLLABORATORS.

*Dermatology:*  
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EDWARD C. SEGUIN, M.D.  
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*Orthopedic Surgery:*  
NEWTON M. SHAFFER, M.D.

*Practical Medicine:*  
E. DARWIN HUDSON, JR., M.D.

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## ON THE PHYSIOLOGICAL AND THERAPEUTICAL PROPERTIES OF GLYCERINE.

Observations on the expired air after the administration of glycerine. By M. A. Catillon (Communication to la Société de Médecine Pratique). In a preceding communication M. Catillon established the fact that glycerine, when introduced into the economy, causes a notable diminution in the quantity of the urea excreted during the twenty-four hours, with a coincident elevation of the animal temperature; at the same time the subjects to which it was administered increased in weight. Besides this he proved that it was entirely absorbed, that only a relatively small proportion escaped with the urine,

the only means by which it was eliminated, and that notwithstanding this fact, it could not be found in the blood. From these facts he concluded that it served as an aliment in respiratory combustion, which consequently spared the fat and nitrogenized compounds of the organism. Thus he explained the augmentation in weight of those subjects who took glycerine, and also the diminution of the quantity of urea excreted coincident with the elevation of temperature. The combustion of azotized material was replaced by another combustion, that of glycerine.

But glycerine gives as the ultimate products of its combustion carbonic acid and water  $C_6H_8O_6 + 14O = 6CO_2 + 8HO$  and we should therefore find a much larger proportion of these elements in the expired air after its ingestion, if, as he has said, it is burned in the blood in the same proportion in which it enters that fluid. Such was the question proposed to be determined in a series of experiments made in the laboratory of Prof. Vulpian, which gave the following results :

Glycerine administered to dogs, without food, caused an elevation of the proportion in 100 parts of carbonic acid contained in the expired air. This proportion which was about 4.3 per cent. before the experiment, became increased to 6 per cent. under the influence of a dose of glycerine corresponding to 3 or 4 grammes for every kilogramme of the animals weight, and to 7 per cent. under the influence of a dose of 6 to 8 grammes to the kilogramme. Not only was the increase in the carbonic acid shown in a proportion raised according as the dose of glycerine was augmented, but even, in the latter case, it was prolonged for a greater time. The increase commenced about an hour after the ingestion, reached its maximum 3 or 4 hours after, and lasted from 5 to 10 hours after the dose. After the ingestion of glycerine, the number of respirations remaining the same, their fullness increases, and the increase remains even when the proportion of carbonic acid has returned to the normal, probably on account of the exercise to which the organ has been put. This augmentation of the fullness of the inspirations did not increase with the dose taken, for it remained the same with doses increasing to 50, 100 and 150 grammes. At the same time that the proportion in every hundred parts was augmented the absolute quantity of carbonic acid gas exhaled increased in such proportion that, in this form, nearly the whole of the carbon contained in the ingested glycerine could be recovered. The absolute quantity of carbonic acid exhaled per minute, before the experiment, by one of the dogs was about 175 c.c. It was raised to 263 c.c. under the influence of a dose of 50 grammes of glycerine, and to 288 c.c. under the influence of a dose of 150 grammes. This increase of the carbonic acid after the ingestion of glycerine was equally well shown in dogs whose respiration was abnormal on account of affections of the respiratory organs. In one of these in whom pneumonia was recognized, the proportion of carbonic acid in 100 parts before the experiment was only 3.2, that is to say, very much below the normal average. It was raised after the ingestion of glycerine to 6.1. In an emphysematous dog the proportion of carbonic acid in

100 parts of expired air was normal, 4.4 per 100; but the fullness of the respirations was small. After the ingestion of glycerine the proportion of carbonic acid was raised to 6 in 100 and the volume of expired air was found doubled, so that the absolute quantity of carbonic acid exhaled was considerably increased. The transformation of glycerine into water and carbonic acid takes place directly, for there was not found in the blood any of the intermediate products of oxidation: glycerine, formic, or oxalic acids. Numerous differences between the properties of glycerine and alcohol have already been pointed out. Contrary to the case of alcohol which M.M. Duroy, Lallemand and Perrin found was eliminated under its own form and which they found in the blood, the brain, and the liver, glycerine is not found in any organ and is eliminated almost entirely under the form of water and carbonic acid.—(*La France Medical*). F. A. L.

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### CEREBELLAR DISEASE.

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Prof. Nothnagel of Jena, publishes a brief summary of the results of the analytical study of more than 250 cases of cerebellar disease. This communication is preliminary to the publication of a systematic work on localized encephalic lesions. His conclusions are: 1. Many cases of cerebellar disease—lesion limited to the hemispheric masses, not pressing upon subjacent organs—may run their course without definite or marked symptoms. Lesions which directly or indirectly involve the middle lobe of the cerebellum or superior vermiform process give rise to cerebellar ataxia. 3d. By cerebellar ataxia we are to understand a perversion of equilibrium closely resembling that observed in alcoholic intoxication, the patient titubates, stand with feet wide apart; if he be barefooted the toes are seen in active motion, and in walking, the body sways a good deal, the foot is brought down with ball or heel first, irregularly; closing the eyes sometimes makes standing and walking worse, sometimes not. In the recumbent position there is no ataxia. The upper extremities remain free from incoordination in the large majority of cases. 4th. N. does not think that there is a definite tendency to fall backward in cerebellar disease, as claimed by some authors.—*Berliner Klinische Wochenschrift*, 1878, No. 15. E. C. S.

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### PHYSIOLOGICAL ACTION OF ACONITE.

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Dr. G. Hunter Mackenzie, in an elaborate article on "The Physiological Action of Aconite," now in course of publication in *The Practitioner* (March), sums up its action on the nervous system as follows:

1. It induces paralysis of the peripheral sensory nerves, the sensory nerve trunks, and posterior (sensory) nerve-roots.
2. The irritability of the motor nerve is augmented.
3. The cerebro-spinal axis is variously affected, the functions of



the cerebrum being unimpaired, the posterior 'sensory' columns of the cord being also unaffected, and the anterior motor columns having their irritability greatly increased.

The action of aconite on the respiratory system is thus summarized :

1. Its effect on the respiration is primary, and due to the direct action of the drug on the sensory fibres of the vagus, and the respiratory centre.

2. It induces a series of symptoms closely resembling those developed after section of the vagi.

3. It causes death partly by asphyxia, and partly by the variety of collapse spoken of by Brown-Séquard as "characterised by a great diminution in breathing, produced by a peculiar influence on the central organs of respiration, the heart continuing to beat with more or less vigor."

F. A. L.

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## NEWS ITEMS AND NOTES.

**The Telephone and the Phonograph in Practical Medicine.**—In a communication to the *Lancet*, a writer states his conviction that the telephone, combined with the phonograph, will become a necessity in clinical medicine, inasmuch as we have, in the phonograph, a means not only of registering sounds, but of reproducing them. "However much the telephone may be perfected for clinical purposes, it must always fail in transmitting sounds of the same quality as those received, consequently this defect will necessitate a special education of the ear to interpret the modified sounds. But with the phonograph sound vibrations can be made visible to the eye, registered on paper like pulse-tracing, and kept for future study and reference."

Dr. Stein, has recently invented a method of photographing the beats of the pulse. It consists in photographing a beam of light which has been passed through a perforated vibrating disk. The perforated disk is attached to the artery like a sphygmograph. A strong light passing through the hole in the disk is made to reach a sensitive plate, on which the movements of the disk are recorded in the form of a wavy line. This invention might be made available for registering the sound vibrations of the telephone; for by attaching a perforated disk at right angles to the receiving telephone drum, the vibrations of the latter could be recorded.—*Scientific American*.

**Poison of Snakes.**—The transactions of the Royal Society contain a paper by Mr. Pedler, in which he publishes the results of his elaborate experiments on snake poison, which had for their object the discovery of an antidote, but which were unsuccessful. Ammonia, as an antidote for application to the wound, he has proved to be utterly worthless. Iodide of methyl and hydrochloric acid diminish the activity of the virus, and perchloride of platinum formed with it an almost insoluble and inert compound. Neither of these substances, when injected after the poison, proved capable of preserving life. In several instances, artificial respiration caused an apparent revival of

life in persons and animals that seemed to be already dead, but in no instance did it avert the fatal issue.

**A New Hypnotic.**—Prof. H. C. Wood, Jr., has analyzed the seeds of *Sophora Speciosa*, a native plant of Texas, and has detected a new alkaloid, which he names *Sophoria*. Half of one of the seeds is said to be sufficient to produce delicious exhilaration, followed by a sleep lasting one or two days.

**Oxygen in the Neighborhood of Vegetation.**—Von Pettenkofer has demonstrated that there is no superabundance of oxygen in the vicinity of growing vegetation ; and that, as a matter of fact, so far as the supply of this gas is concerned, the country, with its boasted superiority, is not much better off than the city.

**Hydrophobia from Cats.**—A writer in the *Lancet*, states that it is a mistake to suppose that there is no danger in the bite or scratch of one of these animals. There have been abundant and melancholy proofs of the peril of contracting hydrophobia from cats ; and the danger is scarcely less than that which attends an injury inflicted by a dog.

**Dr. Fordyce Barker.**—This gentleman has been honored by having the degree of LL.D. conferred on him by Columbia College. The trustees could not have selected a gentleman better fitted or more worthy of this distinction, and we are certain that the numerous friends and admirers of Dr. Barker will feel as gratified as can he himself at this new mark of distinction.

**Filiariæ in Drinking Water.**—Cobbold, the eminent helminthologist, has demonstrated, by dissections of the mosquito, that from the blood of human beings it sucks filiariæ, deposits them in cisterns, wells, etc., and that these entozoa are received into the bodies of those who drink such water.—*Boston Med. and Surg. Jour.*

**Women Doctors.**—For the first time in Holland the degree of *Doctor of Medicine* has been conferred upon a lady, Miss Aletta Jacobs, who has announced her intention to practice medicine at Amsterdam.

**Treatment of Diphtheria.**—In our issue of May 2nd, page 246, we chronicled the success which had attended the treatment of diphtheria in a region of Rhode Island. We have since learned, through the kindness of Dr. Isaac Smith, Jr., of Fall River, Mass., that the preparation mentioned is a secret remedy which is lauded and advertised by circulars distributed to the public as “Dr. White’s Specialty for Diphtheria.” We had obtained the item from a highly esteemed and prominent surgeon of this city, who had evidently been imposed upon by the proprietor of this nostrum during a visit to this city. Under the circumstances, we must conclude that the statements made in regard to the efficacy of the preparation are entitled to no consideration whatever ; and must satisfy ourselves with having been the means of exposing the composition of such a nostrum.

**Erratum.**—In the report of Dr. Little's lecture in the last number of the GAZETTE, page 272, in the list of materials used, insert "10th, *Protective oil silk.*"

**Phosphorus as a Food for the Intellect.**—In an article on the "Hygiene of Chronic Nervous Diseases," Dr. G. M. Beard, says: Although the generalization of Agassiz, that fish feeds the intellect, is among the wildest and most unscientific ever made, yet there is little doubt that the so-called "sea food," fish and oysters, is excellent for the nervous system, and very likely in part by virtue of the phosphorus it contains; but it no more feeds the intellect than phosphorus given in any other way. A healthy brain and an intellectual brain are not synonymous. One may be perfectly well, and, at the same time, perfectly stupid; a fool may eat like a lower animal, while the great philosopher barely keeps himself alive. While food is essential to thought, yet the force in food is not converted into thought-force. Good thinkers, like good athletes, are usually liberal feeders; but thousand who eat as much or more, have very little intellect or muscle. The effect of a diet, largely of fish, seems to be sedative, calmative, like that of bromide of potassium, or phosphorus, or electricity—like these remedies producing dullness, rather than intellectuality, and inducing a disposition to sleep more than to think; not accelerating, but slowing down the wheels of the mind, and therefore excellent and adapted for the nervous, and overworked, and overworried.

Dr. H. T. Hanks has been appointed to the chair at Dartmouth, left vacant by the death of Dr. Peaslee.

**Whooping Cough.**—M. Dervieux believes he has found a preservative means in aconite, associated with ipecacuanha and cherry-laurel water. This mixture is either a veritable prevention, or simply an abortion. His formula is as follows:

Extract of aconite,	.05 grammes	= $\frac{1}{5}$ grain nearly.
Cherry-laurel water,	4.00	" = 1 drachm "
Syrup of ipecac	3.00	" = $\frac{3}{4}$ " "
Mucilage,	200.00	" = 6 $\frac{1}{2}$ ounces "

This is given as soon as the characteristic cough presents itself, in doses of a teaspoonful every hour to young infants; two teaspoonfuls to those more than three years of age; and a tablespoonful to adults every hour. — *Lyon Medical.*



# THE HOSPITAL GAZETTE

AND

## ARCHIVES OF CLINICAL SURGERY.

A WEEKLY JOURNAL OF MEDICINE, SURGERY AND THE COLLATERAL SCIENCES.

EDITED BY

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H. H. KANE, M.D., Associate Editor.

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[The editors hold themselves in no way responsible for the views expressed by contributors.]

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### EDITORIAL.

CHARLES G. POLK, A. M., M. D.,

Professor of Surgery in the Eclectic Medical College of Pennsylvania.

AND

LANDON B. EDWARDS, M. D.,

Editor of the *Virginia Medical Monthly*.

*VERSUS*

THE MEDICAL PROFESSION.

We had supposed, after all that has been said in the various respectable journals throughout the country, that no editor of a journal that had any claim to respectability would again permit any of Polk's contributions to appear in his columns. It seems that we have been mistaken, for the May number of the *Virginia Medical Monthly* has another of Polk's peculiar articles—a tissue of folly and trash, filled with advertisements of his own peculiar manufacture, and endorsed in a foot note by the editor of the journal.

We are naturally led to speculate upon the amount which was paid for the insertion of this advertisement in the reading columns of the

journal. We cannot suppose that the editor inserted it without ample pecuniary consideration, as he must know that the admission of such advertisements will soon exclude all communications from respectable and intelligent contributors.

Dr. Sayre and the other contributors to the number containing this advertisement must feel highly flattered to be in Polk's company, and they will no doubt be highly instructed in "Infantile Innutrition," and may take lessons for their future correspondence. This method may pay Dr. Edwards well, it certainly degrades the journal and the contributors; and the profession, if it allows it to continue.

Dr. Edwards is the editor of a journal and necessarily sees all his exchanges; he therefore cannot plead ignorance of the degrading falsehoods of this individual.

In a previous number we gave positive proof that Polk was one of the professors, and sharers in the plunder of the bogus diploma mill, the American University of Philadelphia. Polk has since denied that he was connected with that or any other swindling shop. As further proof of the facts formerly presented we would say that we have lately found, under Polk's own hand, the following advertisement:—

**"Prospectus.**

Encyclopedia of the Science and Art of Surgery,

A Treatise on Special Therapeutics.

By Charles G. Polk, A.M. M.D., Phar. D.

Professor of Surgery in the Eclectic Medical College of Pennsylvania, and Professor of Materia Medica in the American University of Philadelphia.

Price \$2.50. For particulars, address the author at—Catherine St., Phila."

We before stated all these facts, and proved them from advertisements in newspapers, which Polk denied. Here the fact appears under his own hand.

We need not recapitulate what has been said of this individual, suffice it to say that he has been characterized as "a fraud and a falsehood too evident to require further demonstration" by almost every respectable journal in the country. He even went so far in assurance as to threaten the editor of the *American Medical Bi-Weekly*, who gives him the benefit of an open letter, which he finishes in these words. "As Polk threatens to sue us for libel, he will find in this number a valuable amount of material to be used on that occasion. E. S. G."

We reiterate what we said in a former issue of the GAZETTE.

"After all there is some extenuation for Polk, there is little for Dr. Edwards. Polk has been in the habit of living by the same means, thinking in the same manner, making use of all that he can grapple into his net as the other members of the "University" have done, he is but following out his instincts;" but Dr. Edwards is disgracing himself, his journal, his contributors, and the profession. What can have induced Dr. Edwards again to change his mind? We have seen a copy of a letter from him to Polk in which he says,— "The evidence in

regard to these matters has forced me to lose all confidence in you, and give no credence to anything you may have to say."

Dr. Edwards was also furnished with the following fact. "I can find persons who have seen his Polk's signature on a diploma of that college; which was sold to a picture dealer," so he "may amuse himself with the reflections that his immaculate journal has helped to give value and honorable standing to diplomas that are sold in the open market for what they will bring."

Dr. Edwards was very indignant with us for speaking plainly of the disgrace under which he put the profession by assisting such a brazen-faced imposter as Polk in his nefarious practices. We shall speak more plainly and appeal to the whole profession if Dr. Edwards repeats this insult.

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## LECTURES.

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### CLINICAL LECTURE ON PNEUMONIC PHTHISIS.

Delivered at the Pennsylvania Hospital,

BY

J. M. DA COSTA, M. D.,

Professor of the Practice of Medicine, in the Jefferson Medical School.

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[Reported for THE HOSPITAL GAZETTE.]

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L. M., 23 years of age, single, by occupation a sewing girl, was admitted to this hospital on the 19th of February 1878. She told us when she came here that she had already lost two sisters from consumption, but that she herself had always been entirely healthy until about a year before the time of her admission. She dated the beginning of her sickness back to a day when she became very much overheated and was immediately afterwards chilled through. Following this plain history of an acute beginning, came cough, pain in the right side, and fever. There was no spitting of blood at first. There was some loss of flesh, but according to the patient, neither the pain nor the loss of flesh were persistent symptoms. Five months ago the woman caught a fresh cold and since that time her monthlies have not made their appearance. Lately the loss of flesh has been more marked, and there has been greater depression and weakness than was previously the case. Even in the past five months, however, none of her symptoms have been as pronounced as might have been expected. Her case has been subject to very marked occasional remissions and exacerbations of intensity. Since she caught the second cold her cough has been more persistent and the sputa more abundant taking it all in all. Nevertheless, no one would suppose from outward appearance, that the girl was suffering from any grave disease.

Upon admission her temperature was 101°, her pulse 118, and her respirations 24. She was quite feverish. The patient was evidently, at the time, laboring under an acute exacerbation of the disease. Her urine was high colored, but the most careful examination failed to reveal the presence of any sugar, or of any albumen. Physical examin-



ation of her chest very soon convinced me that there was a cavity of unusual size in the right lung. Auscultation revealed metallic respiratory murmur with occasional metallic tinkling sound. When the patient talked in a loud tone, or, better still, when she whispered, there was distinct amphoric echo of the breath sounds. These signs were conclusive in pointing to the existence of a very grave pulmonary lesion on the right side. The other lung at the time of first admission of the patient, was perfectly healthy, except at the apex, where the percussion note was duller than should be and the respiratory murmur somewhat harsh.

Of late, I have had occasion to remark once before, the girl has expectorated a great deal of muco-purulent matter, which is very frequently tinged with blood. The resident physician, Dr. Collins, says, that the sputa must amount to a pint or over in the course of the twenty-four hours. On some few occasions quite recently the matters expectorated have had an offensive odor.

We have treated the patient with cod-liver-oil, the syrup of the hypophosphites, small doses of arsenic, and plenty of good nourishing food, up to within the past week or so. Under this régime, she has shown the most extraordinary improvement. She gained five pounds in weight almost immediately, and began to look well and rosy. Her breathing became less oppressed and her fever went entirely away. Her temperature was steadily in the range of the nineties, never running above  $99\frac{1}{2}^{\circ}$ . Had any one of you gone into the wards at that time you would have asked, "What is this healthy looking, active girl, doing in the hospital?"

This was the condition until about a week ago when she grew pale again and her temperature began to show a marked tendency to rise, mounting up, once, to  $101^{\circ}$ . There was still the most marked metallic respiration on the right side. The percussion note was, on the other hand, very likely to mislead one not trained in noting small differences of sound. It seemed of perfectly normal pitch, but upon comparing it with that elicited from the healthy lung it sounded amphoric, almost tympanitic in pitch. When the girl spoke in loud tones, or whispered, a distinct metallic echo could be heard. The physical signs, in fact, seemed to be much the same as those which were elicited at the date of admission, except that they were now and then obscured by a loose bronchial rale. The left lung still showed some dullness at the apex, with harsh respiration. While, however, the physical signs had remained almost entirely stationary, the rational signs had undergone a most marked exacerbation. The significance of the physical signs was undoubtedly that there was an enormous cavity in the right lung destroying nearly all of its tissue while the left lung was but little diseased. The cavity in the right lung is certainly the largest which has ever come under my notice.

The question now arises—how was this cavity produced? Is the case strictly one of gradual destruction of lung tissue, as in tubercular phthisis? I think not. I should rather ascribe the present condition of the right lung to a latent pneumonic which led in time to pneumonic phthisis. The lung was the seat of a cheesy degeneration, then

there followed the breaking down of the softened lung tissue, leading to the formation of a cavity. The history of the case favors, I think this view—the acute beginning, the extensive disease of one side of the lungs and the slight affection of the other side. The right lung to-day is almost liquified. We might, indeed, call this case one of pulmonary abscess were it not for the local irritation set up and for the very evident constitutional tendencies. The left lung is slightly tubercular at the apex. The right lung has been destroyed by a pneumonic action.

I want to call your attention to the great disproportion between the rational symptoms and the physical signs of the disease. I very often see just such cases as this one. Of course the physical signs disclose the true nature of the case and the true extent of the disease, but it does not do to base your prognosis upon the physical signs, in such an instance.

I desire to illustrate a very nice point of prognosis from this case. *In a case of pneumonic or tubercular phthisis, where the general symptoms are favorable i. e., are not grave, while the physical signs, on the other hand, point to the existence of very serious disease of lung structure, the prognosis will turn upon the showing of the general symptoms rather than upon that of the physical signs.*

To give more particular force and point to this general rule I would say that in this case the indications of general good health would lead me to say confidently, although the physical signs are such as they are, that the disease is likely to remain comparatively latent, that the fatal issue though certain is likely to be postponed for some time to come. *So long as the general health is comparatively good the lung disease is likely to remain, more or less, stationary.* The events of the last few days may change this present view of the case. If the fever and cough increase; and night sweating and dyspnoea, with general loss of flesh and strength make their appearance, I shall know that the tubercular disease of the left lung apex is increasing and of course modify my prognosis accordingly. At present I wish you to understand me thoroughly. I say that the ultimate prognosis is bad, very bad, but that death, though none the less certain, may be more or less delayed owing to the comparative latency of the disease in the left lung.

How are we treating the girl. We have been giving her and we shall continue to give her until the temperature becomes normal, Niemeyer's pill, at least a pill resembling Niemeyer's, which we use at this hospital. This pill contains belladonna, digitalis, and quinia, but not any ipecacuanha. She takes this prescription thrice daily. It is already beginning to control the febrile manifestations. In addition to this she is taking inhalations of Lugol's solution of the strength of M. V. to the  $\frac{1}{2}$  j. by the atomizer. When the Niemeyer's pill brings down the fever we will put the patient on cod-liver oil, the syrup of the hypophosphites, and arsenic, again.

## REPLY TO DR. S. B. ST. JOHN'S PAPER ON PLASTIC APPARATUS IN FRACTURES

Delivered before the Surgical Section of the New York Association of Medical Men, May 14th, 1877.

FRANK H. HAMILTON, M.D., F.R.C.S.

Surgeon to Bellevue Hospital, N.Y.

Reported by THE HOSPITAL GAZETTE.

MR. CHAIRMAN: the paper by Dr. St. John is such as I should have expected from him. It is full and complete and as impartial as ever may be properly expected from one who is defending his own views, but there are some points in which I cannot agree with the author fully, and especially as to the conclusions which he has drawn from the facts which he has gathered. It was many years ago that, when Mr. Radley announced that he had treated many fractures without apparel of any kind except an ordinary bandage, and that they were all "cured," that Mr. Johnson, the celebrated editor of the *London Medico-Chirurgical Review*, replied "that a cure took place we do not doubt, but the information we should most desire would be, on the length of the cured limb, and on a few other matters of that sort," and at a later day the hospitals of Philadelphia and of Boston and of New York, furnished elaborate reports extending over a series of years, of the fractures of long bones treated in their wards, but in which nothing is said of the length of the cured limbs, and very little or nothing as to whether they were straight or crooked. The only apparent exception to this statement is found in the reports from the New York City Hospital made by Drs. Lente and Buck, respectively, in which they state the *average* results, but do not give the results in each individual case.

In 1853 Dr. Boardman, of Buffalo, published, under my supervision, nearly 400 cases of fractures of long bones which I had personally measured, and additional cases were published by myself, with measurements, in my report on "Deformities after Fractures" made to the American Medical Association in 1855-6-7. From that time I know of no similar tables which have been constructed until Dr. Sands made a report on certain cases of fractures of the thigh treated by plaster-of-Paris in Bellevue Hospital. This was followed by a paper by Dr. St. John, with reports of cases treated in the same manner, at Bellevue Hospital, and still later by papers by Drs. J. D. Bryant and Geo. A. Van Wageningen, the three latter gentlemen having been house-surgeons at Bellevue Hospital, and having obtained their principal experience in the treatment of fractures at that institution. It may be stated that many of the cases presented in these four successive reports from Bellevue Hospital are enumerated more than once, and, without being so indicated, are comprehended more or less in the other reports; that is to say, the same cases have been repeated in the successive reports. These are all the reports up to the present time, of which I have any knowledge, at home or abroad,



in which any attempt has been made to give the exact result in each individual case. It will be further noticed that with the exception of my own humble efforts, these reports have all been drawn from the records of Bellevue Hospital. Dr. St. John corrected this statement of Dr. H. subsequently, by remarking that a portion of the cases presented by him this evening were obtained from other sources than Bellevue Hospital.—REP. Dr. St. John has correctly stated this evening that statistics, in order to be valuable, must be made with care, and by responsible and experienced persons, and that otherwise they would be vitiated. Now, no one can appreciate more highly the scholarship and ability of the young men who constitute the house staff of Bellevue Hospital than I do myself; they have all undergone the most severe competitive examination for the places which they occupy, and a long personal acquaintance with them warrants me in saying that as finished scholars in the departments of medicine and surgery, they have no superiors in this country. All they lack when they enter the hospital is practical experience, and that is what they have entered the hospital to obtain.

Any one who has undertaken to examine the records of Bellevue Hospital in reference to the question of results in the treatment of fractures will observe a remarkable deficiency in this respect. It is only in relation to fractures of the femur that there has been in this regard a slight improvement, but in Dr. Frederick E. Hyde's tables, published in the *New York Med. Jour.*, Oct. 1874, including only fractures of the femur, 308 cases, being all which were treated at Bellevue, and found upon the records down to the year 1873, in 197 cases no mention is made as to the length of the limb.

That visiting surgeons who have no *special* interest in this particular question, should omit to make the measurements themselves, or to instruct their house-surgeons to record the same, is not strange: nor is it any imputation upon the faithfulness of the house staff that, under the same circumstances, they should omit to do so. The truth is, probably, that the house-surgeons themselves felt as little interest in the matter as did their chiefs, but, of the records which are made in these Bellevue Hospital books, it is fair to suppose that they were in general the results of the measurements made by the house staff and not their chiefs. This I have reason to know is often, if not generally, the fact. Now, are these records thus made by persons little interested in the question, and by persons inexperienced in measurements, such as we may be required absolutely to accept, and as authoritative? Not one of the four gentlemen who made the several reports from Bellevue Hospital already referred to, claim to have measured the limbs themselves, personally; nor would it be possible for them to state by whom the measurements were made, or even, probably, by whom recorded. Is it our duty then, in relation to a matter of science requiring so much experience and exactitude, to accept of these records as authoritative? Remember it is no longer a question of inches, but of lines. We have made great advances, as we believe, in the treatment of fractures, and especially of fractures of the thigh. The average shortening in fractures of this bone was,

when my tables were first constructed, about three quarters of an inch, and many were shortened very much more. We know that we have reduced this average, and now we have come to the question of lines, as between the two or three plans which alone to-day retain to any extent the confidence of the profession in this country. I should be warranted, therefore, in rejecting all of these statistics as being placed in testimony against the statistics carefully made and recorded, of any man of recognized standing and authority in the profession.

But accepting Dr. Van Wageningen's tables as they stand, drawn from the records of Bellevue Hospital, and presented by Dr. Sayre as a supplement to his report on the subject of fractures made to the American Medical Association, I think in 1874, we shall observe that the results of the treatment of cases of fracture of the femur by plaster-of-Paris was by no means remarkably good. Dr. Sayre says in his report: "Fractures of the long bones require that extension and counter-extension, under the influence of chloroform, or other anæsthetic, if necessary, should be made in a proper direction until perfect accuracy of adjustment is obtained, and after this, retention and fixation in this normal condition, until consolidation.

"By accuracy of adjustment I mean the perfectly normal condition of the bone as to length and position. When the extension and counter-extension have been properly made, the muscles and other tissues surrounding the bones will necessarily and positively force the fractured extremities into their natural position, as above described, unless some foreign body, as a shred of muscle or connective tissue, has got between the fragments."

Now, in the 32 cases of fracture of the femur reported by Dr. Van Wageningen as having occurred during the year preceding the report, and all of which were treated by plaster-of-Paris, according to the most approved methods known at Bellevue, the plaster being applied by experts, and some of which cases at least must have been in the wards of Dr. Sayre, there are 27 cases in which there is more or less shortening of the limb, one case in which the shortening is 1 1-8 inches, one in which the shortening is 1 1-2 inches, one in which the shortening is two inches and one with no union. It is apparent therefore, that in these 27 cases either the extension has not been "properly made," or the "retention and fixation" intended to be accomplished by the plaster-of-Paris has failed. The limbs are certainly not in their "normal condition." In the text of Dr. Sayre's report, the extreme shortening of the three cases is explained by the fact that these three patients "were necessarily confined to their bed on account of other complications," but the complications alluded to were delirium tremens in one case, pneumonia in the second, pleurisy in the third, neither of which would have interfered with a perfectly successful result in case Buck's extension had been employed. The only explanation of the case of non-union offered in the reports is that "the first splint was loose when removed." I would suggest whether an apparatus which will allow a limb to shorten two inches because the patient is compelled to lie in bed, can be supposed to have any power in itself to pre-

vent shortening. How is it possible if the apparel has any secure point or points upon the surface of the body or limb for making extension or counter-extension, that while on, the limb should thus shorten? Is it not evident that the apparatus has left the limb to shorten as much as it was possible for it to shorten; even when no apparel is applied?

I shall deem it my duty now, gentleman, as in contrast with these records, to show you the results of the treatment of fractures of the thigh in cases in which I have had complete control of the patients from the beginning to the end of the treatment, and in which Buck's extension, or some modification of this method, has been exclusively employed. I have hitherto refrained, from motives of delicacy, from separating cases of fracture treated by myself from those treated by other surgeons. My tables have hitherto indicated only the average results obtained by other surgeons and myself conjointly. The first attempt which I have made to separate my own cases distinctly from the cases treated by other surgeons was in the last edition of my "Treatise on Fractures and Dislocations," in which I have tabulated 24 cases treated by myself with Buck's extension, and 30 cases treated by other hospital surgeons with plaster-of-Paris, all of which I had myself measured and examined. In this table it will be seen that in the cases treated by plaster-of-Paris there are five marked as bent or much bent at the seat of fracture, six as having ankylosis at the knee in various degrees, one with no union, one with paralysis and abscess of the leg, one resulting in gangrene, amputation and death. As to shortening: one is perfect, eleven are shortened over an inch (one being two inches shortened), fourteen at least an inch; while in my own table, 24 cases, every one is straight, there is no case of non-union, there is no case with ankylosis of the knee, there is no case of paralysis or abscess, there is no case of gangrene, amputation and death; six have united without shortening, only two with a shortening of an inch, four or five with a shortening of 3-4 inch or thereabouts, and the remainder less.

I have then been able to do better with Buck's apparatus than was done at Bellevue, according to the report of Dr. Van Wagenen, with plaster-of-Paris—very much better. It seems to me proper, however, in instituting a comparison as to the value of different methods, so far as the length of the limb is concerned, to the shaft of the femur alone, excluding extra and intra-capsular fractures of the neck, and fractures through the condyles. The successful treatment of both of these latter accidents depending less upon the apparel employed than upon the nature and complications of the accident. In the tables published in the last edition of my treatise will be found 13 fractures of the shaft of the femur treated by myself by Buck's and my own methods. To these I have now to add 4 fractures of the shaft treated exclusively by myself at Bellevue hospital, during the year ending January 1st, 1878, and contained in the papers which I now present to you, thus making in all a total of 17 cases treated in this manner by these methods by myself, of which six present perfect results; or, perhaps I ought to say, seven, inasmuch as one is shortened only the eighth of an inch, and I have been in the habit of con-



ceding to others when the shortening did not exceed the eighth of an inch, that it should be recorded as perfect. Only four of the perfect cures were children under 18 years of age, not one is shortened over  $\frac{3}{4}$  of an inch, and the average shortening is less than two-eighths of an inch. All are straight. As to non-union, it has never occurred in a case treated by myself, by any method. I have never had ulceration to ensue from a dressing, and never had gangrene ensue, as a result of, or in connection with the treatment. This is my experience, gentlemen, with the method of treatment, which in the clinical lecture alluded to by Dr. St. John, I saw fit to recommend to the physicians and students who were in attendance, and it was because such results had not been obtained by the treatment with plaster-of-Paris at Bellevue Hospital, and elsewhere, where the cases had come under my immediate observation, that I felt it my duty to say that the plaster-of-Paris dressings, which had for several years been employed at Bellevue Hospital in the treatment of fractures of the *thigh* constituted a step backwards, and that I was happy to say that during the last year this method of treating these fractures had been almost entirely discontinued. The report made this evening by Dr. St. John, contains an enumeration of five or seven cases of terrible accidents under its use, namely, deep perforating ulceration, gangrene and death, all of which occurred in the space of a few years, and in the hands of admitted experts. I do not think, therefore, that Dr. St. John is authorized by the facts to condemn so pointedly, as he has done in the paper read to us this evening, my remarks made on the occasion referred to. I think they would have warranted me in saying much more than I did say as to the inefficiency and danger of using plaster-of-Paris in the treatment of fractures of the thigh.

From the 1st of January, 1877, to the 1st of January, 1878, 40 fractures of the thigh were admitted to Bellevue Hospital, and of these, only one was treated with the plaster-of-Paris dressing alone, from the beginning to the close of the treatment; 31 were treated exclusively by some modification of Buck's extension. 1 was treated on a double-inclined plan, the patient having a bent and ankylosed knee. In 3 cases, plaster-of-Paris was used from 2 to 7 days and then removed on account of its inadequacy or of the pain which it caused, and Buck's extension substituted. In the cases of two children, aged respectively 4 and 7 years, the first had been treated outside, with plaster, two weeks, and the limb was very crooked; extension was substituted, and the result was a perfect limb; in the second case, plaster-of-Paris was used alone, from the 10th to the 19th day, and then it had to be reinforced with a long splint. All these facts will be seen by a perusal of the following tables:

TABLE No. 1.

*Fractures of the Femur treated wholly in Dr. Hamilton's service in 4th Surgical Division at Bellevue Hospital, from Jan. 1, '77, to Jan. 1, '78.*  
*All simple Fractures. Prepared by W. S. Halsted, A.M., M.D., Senior House Surgeon.*

No.	Name.	Age.	Sex.	Point of Frac.	Treatment and Remarks.		Amount of Shortening.	Straight or not.
1	Mary Stafford.	75 y.	F.	Neck, Extra Capsular.	Buck's extension, with 8 lbs. for 3 weeks, nothing but a long side splint.	After which, for 2 weeks	1 inch.	Straight.
2	Cath. McClelland.	40 y.	F.	Neck, Ex Capsul.	Buck's extension, with 9 lbs.		1 1/2 inch.	Straight.
3	Wm. Williams.	11 y.	M.	Junction of Upper & Mid. thirds	Buck's extension. First 8 lbs. then 12.		None.	Straight.
4	Wm. Cole.	46 y.	M.	Middle Third.	Buck's extension for a few days. Died on 11th of tetanus caused by a severe lacerated wound of the opposite foot.			
5	Isaac Curry.	5 y.	M.	Middle Third.	Dr. Hamilton's double, long splint for children, during six weeks, union firm at 5 weeks) after that, for 2 weeks, silicate of soda; immovable dressing.		1 1/2 inch.	Straight.
6	Annie England.	53 y.	F.	Lower Third.	Buck's extension, 16 lbs.		1 1/2 inch.	Straight.
7	Ernest Schilatt.	34 y.	M.	Lower Third 2 1/2 in. abv. knee joint.	Buck's extension, 18 lbs. for six weeks, union then firm and plaster-of-Paris was applied for 2 weeks.		3 3/4 inch.	Straight.
8	Lavinia.	28 y.	F.	Left Lower 1/3.	Buck's extension, 10 lbs. United in six weeks.		Unknown.	Straight.
9	Giffin.			Right Lower Third.	Buck's extension, 10 lbs. United in 3 mos., was not firm until she left her bed and went about on crutches, without splints. This thigh was never as large as the left. It is now 1-16 of an inch the longest.		Unknown.	Straight.

This table is complete, so far as it was possible to ascertain the facts.

There are four fractures of the *shaft* in which the amount of shortening was ascertained, namely, Nos. 3, 5, 6, 7. In one, aet. 11 y., there is no shortening. In case 6, the shortening is only 1-8 inch, and this might properly be recorded as perfect. In the remaining two the average is less than 1-2 an inch. In every case the limb has united without a bend at the point of fracture, and in the usual time, except in the case of one thigh, which was congenitally smaller than the opposite thigh. The 2 extra capsular fractures of the neck, have recovered in the usual time and with the usual shortening.

F. H. H.





TABLE No. 3.

*Fractures of the Femur treated in the 1st, 2d, and 3d Surgical Division of Bellevue Hospital, from January 1, 1877, to January 1, 1878, collected and arranged from the records by G. F. Monroe, A. M., M. D., House Surgeon.*

No.	Name.	Age.	Sex.	Point of Fracture.	Character.	Short, inches.	Remarks.
1	H. Kearney.	40 y.	M.	Intra-cap.	Simple.	$\frac{3}{4}$ inch.	Buck's extension.
2	J. Mehan.	50 y.	M.	Intra-cap.	Simple.		Buck's extension 1 week, plaster then applied and removed on account of pain, and Buck's extension resumed. Non-union.
3	M. Mallev.	30 y.	M.	Extra cap.	Simple.	1 inch.	Buck's extension.
4	Kelly.	40 y.	F.	Extra cap.	Simple.	$1\frac{1}{2}$ inch.	Long side splint.
5	J. McCann.	80 y.	M.	Extra cap.	Simple.		Buck's extension.
6	J. Hardy.	40 y.	M.	Extra cap.	Simple.		Buck's extension.
7	J. Cahill.	30 y.	M.	Upper $\frac{1}{3}$ .	Simple.	1 inch.	Buck's extension.
8	J. Berry.	27 y.	M.	Upper $\frac{1}{3}$ .	Simple.		Buck's extension.
9	R. Norris.	7 y.	M.	June, mid. & Up. $\frac{1}{3}$ .	Simple.		Plaster-of-Paris from 10th day, reinforced with a side splint.
10	P. Casey.	50 y.	M.	June, mid. & Up. $\frac{1}{3}$ .	Simple.		Buck's extension 4 weeks, then plaster 3 weeks.
11	M. Boderiquy.	23 y.	M.	Middle $\frac{1}{3}$ .	Simple.	$\frac{3}{4}$ inch.	Buck's extension 5 weeks, then plaster, which, causing pain, was removed, and Buck's extension substituted.
12	J. Farland.	20 y.	M.	Middle $\frac{1}{3}$ .	Simple.		Buck's extension.
13	M. McCarthy.	4 y.	F.	Middle $\frac{1}{3}$ .	Simple.	Perfect.	Treated outside 2 weeks, with plaster-of-Paris. Much deformed when adm'd. Buck's applied and kept on until cured. Result perfect.
14	J. Kling.	40 y.	M.	June, Mid. & Ir. $\frac{1}{3}$ .	Comminuted.		Buck's extension.
15	J. Meyer.	62 y.	M.	June, Mid. & Ir. $\frac{1}{3}$ .	Comminuted.	$\frac{3}{4}$ inch.	Buck's extension.
16	W. Lust.	41 y.	M.	June, Mid. & Ir. $\frac{1}{3}$ .	Simple Transverse.	$\frac{3}{4}$ inch.	Plaster-of-Paris 2 days, then Buck's extension.
17	M. Rees.	42 y.	M.	Ir. $\frac{1}{3}$ ex. into jnt.	Complicated.	$5\frac{1}{2}$ inch.	Buck's extension.
18	G. Kenser.	40 y.	M.	Shaft.	Refraction.		Buck's extension 2 days, then Plaster-of-Paris.

This table is very incomplete, owing to the imperfection of the Hospital Records, which have been examined very carefully by Dr. Monroe.

F. H. H.

One word with regard to the specimen sent to me by Dr. Gibbs, of S. C., and to which Dr. St. John has made reference in his paper. Dr. St. John thinks it is unfair to present this, in which there is a shortening of only  $\frac{3}{4}$ ths of an inch, the patient being 83 years of age, as testimony of the inefficiency of plaster, and that I ought not to have given it to the public in my treatise on fractures as testimony to this effect. I have, gentlemen, this specimen now in my hand, and it is my opinion, and you will examine for yourselves, to see that it is shortened more than three-quarters of an inch. Dr. Gibbs, as I have stated in my treatise, thought, from his examination before death, that it was not shortened more than three-quarters of an inch, but I stated in my report of the case that I thought it was more, and my opinion is that it is shortened an inch and a half. But my object in showing the specimen was, as there stated, to permit it to be seen that it shortened as much as it possibly could have shortened, and that the lower fragment, in its ascent towards the body, was only arrested when its upper extremity came in contact with the under surface of the neck of the femur, and that within these limits, whether it was three quarters of an inch or an inch and a half, the apparel had no power to prevent the shortening. The apparel was applied by a good surgeon, under chloroform and pulleys, as applied at Bellevue, within 15 hours after the accident, the patient being in robust health, and as soon as he was able to do so, he went about upon crutches. He died six months after the accident from apoplexy.

Dr. Hamilton then presented a photograph of a patient, Dennis Kelly, aet. 71, who, three years ago, sustained an extra-capsular fracture of the left femur, and which was treated at Bellevue Hospital by plaster-of-Paris, and who, October 30th, 1877, was admitted to Bellevue Hospital again, having, in consequence of a fall, sustained the same fracture in the right thigh. Buck's extension was applied, with 8 pounds weight. He is now walking about the wards of the hospital, his right limb being half an inch longer than the left, while over the left trochanter there is an ugly outward projection indicating that the fragments had been permitted to bend outwards, in this direction, while the form of the right hip is natural.



## HOSPITAL RECORDS.

### ST. FRANCIS HOSPITAL, NEW YORK

Reported by W. H. HAYNES, M.D., Assistant Physician.

#### SYMPTOMS.

The patient was a man aged thirty-six, whose father died of an attack of apoplexy. Habits temperate. Had gonorrhœa and chancreoids fifteen years ago. Gives no history and presents no lesions of syphilis. Has always enjoyed good health, never having lost a day's work on account of illness. About the beginning of last November, he began to feel a degree of weakness and fatigue hitherto unknown

and to enjoy a markedly increased venereal appetite. About the middle of the month he was seized with a severe pain and contraction in the right shoulder. It disappeared in a few days but was followed by severe pain in the same situation, unattended however by contraction, and wandering pains in his back and lower limbs. These became fixed and increased in severity. They involved all the extremities, were of a sharp, "drawing" character and were increased by motion. They all seemed to start from the back. Motion also provoked pain along the spine. These symptoms were attended by fever, loss of appetite and constipated bowels, but not by headache, sense of constriction in the chest or interrupted breathing.

A few days after the commencement of the sharp pains, he noticed a numbness in his fingers and toes that gradually extended and involved the whole of these portions of the extremities. After the sharp pains had subsided paralysis of voluntary motion appeared, which, together with paralysis of sensation gradually extended until the whole body was affected, save in the acts of defecation and micturition. His venereal appetite disappeared on the appearance of the acute pain and has not since returned.

About the middle of December he was able to sit up in a chair, but could not perform any voluntary act with the extremities. There was slight atrophy of the muscles. Sensibility and reflex and electric excitability almost *nil*. Morphine had to be used to give rest, there still being some pain. Appetite fair; bowels constipated. Temp.  $103^{\circ}\text{F}$ . Was put on gr's 10 iodid. potash and gtt. 30 tr. ferri mur. t. i. d. A gradual improvement was noticeable, the right side of the body advancing more rapidly than the left.

At the beginning of April, 1878, the same treatment, with the addition of electricity for the past two months having been followed, his general condition was fair, although he was still weak. Motion had returned to all the muscles, but normal strength and rapidity were lacking; for instance, it is necessary for him to use his hands in order to rise from a chair. The grasp of his hand is little more than a faint pressure, and in walking he throws out his feet. He finds it necessary to look at the ground in walking and is unable to stand with his eyes closed. There is no atrophy of the muscles.

Sensibility as tested by the æsthesiometer is as follows:

LEFT UPPER EXTREMITY.				RIGHT UPPER EXTREMITY.			
Arm, external surface,	$3\frac{1}{2}$	inches.		Arm, external surface,	3	inches.	
"    internal	$2\frac{1}{2}$	"		"    internal	$2\frac{1}{2}$	"	
Forearm, flexor	$2\frac{1}{2}$	"		Forearm, flexor	$2\frac{1}{2}$	"	
"    extensor	$3\frac{1}{4}$	"		"    extensor	$3\frac{1}{2}$	"	
Hand, dorsal	$2\frac{1}{2}$	"		Hand, dorsal	$2\frac{1}{2}$	"	
"    palmar	$1\frac{1}{4}$	"		"    palmar	1	"	
Fingers, " "	$\frac{1}{2}$	"		Fingers, " "	$\frac{1}{2}$	"	
Anterior surface of chest, on both sides	$1\frac{1}{2}$	inches.					
"    "    "    abdomen	$2\frac{1}{2}$	"					

In the lumbar region and over the scapula  $2\frac{3}{4}$  inches. In lower extremities there was a corresponding loss of about the same degree.



as in the upper. He can estimate and differentiate weights and temperatures pretty correctly. Electric excitability is still very much diminished, but is greatest in the flexors. Reflex excitability much diminished. No ataxia, cannot pain him by ordinary means, as pinching and pricking. Bodily functions well performed. Continues taking the iron and interrupted galvanic current, ophthalmoscopic examination of the eyes shows them to be normal.

The absence of some of the characteristic symptoms of myelitis, and the favorable termination in this case can be accounted for, I think, by the rather mild degree of the inflammatory process, the onset and progress of which were gradual, and the acute symptoms of not long duration.

## PERISCOPE.

### COLLABORATORS.

*Dermatology:*  
HENRY G. PIFFARD, M.D.  
*Diseases of the Nervous System:*  
EDWARD C. SEGUIN, M.D.  
*Diseases of Women and Children:*  
FRANK P. FOSTER, M.D.  
*General Surgery:*  
EDWARD J. BIRMINGHAM, M.D.

*Genito-Urinary Disease and Syphilis:*  
ROBERT W. TAYLOR, M.D.  
*Materia Medica and Therapeutics:*  
FREDERICK A. LYONS, M.D.  
*Ophthalmology and Otology:*  
SAMUEL B. ST. JOHN, M.D.  
*Orthopedic Surgery:*  
NEWTON M. SHAFFER, M.D.

*Practical Medicine:*  
E. DARWIN HUDSON, JR., M.D.

## ELECTROLYSIS OF SCROFULOUS LYMPHATIC GLANDS.

Mr. Golding Bird has contributed a paper on the treatment of scrofulous lymphatic glands, by the electrolytic caustic. He referred to the general disuse of caustic. He divided cases of scrofulous glands into three classes: 1. The glands free, though enlarged. 2. The glands matted together, or to the skin, or presenting hardened nodules, or encapsuled lymphoma. 3. The condition of active inflammation. The first-class was met by general treatment. In the second it was better to use the knife. In the third, the best operation was by caustic; and the least painful of any mode of applying it, was the one now described. A small arrow of sheet zinc, one inch and a half long, by half an inch wide, sharp at one end, had a copper wire ten inches long attached to the other. The other end of the wire was soldered to a plate of thin sheet silver or copper, three or four inches square. The latter was firmly strapped upon a piece of lint, wet with salt and water, on to the skin somewhere near the spot to be destroyed. Over it was placed some oiled silk or waterproof strapping. The zinc point was then thrust through the fungating mass to be destroyed; a small shield of gutta-percha, or cork, regulated the

zinc point. Some cotton-wool and a bandage were placed over all. The gland was gradually disintegrated by the formation of chloride of zinc at the expense of the metal inserted, and came away in four to six days. When all the gland had come away, the wound rapidly closed, with very little scar. The lint must be wetted with salt and water, night and morning. Mr. Spencer Wells was employing this method for the removal of uterine cancer. He referred to two cases, in which, though the results were very satisfactory, much pain was complained of. In the latter, the total weight of slough was four hundred and thirty-three grains. He narrated the history of one case in which he applied the zinc in the form of a flat disc to necrosed bone with good result.—*British Medical Journal*.

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### TREATMENT OF URETHRAL FEVER.

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Mr. Reg. Harrison of Liverpool, refers to the fact, that not unfrequently within a few hours after the passage of a bougie, the patient experiences a sense of chilliness; this rigor is usually followed by more or less febrile excitement, which quickly subsides, without causing the patient much inconvenience or distress; instances, however, occasionally occur, when similar symptoms prove to be of the gravest character, and are speedily followed by death. He records a case that fell under his notice, when death followed the introduction of a bougie in six hours and a half, such cases are no doubt due to shock propagated by the sympathetic system, which largely supplies the generative organs. They rarely or never occur when anæsthetics have been used, thus suggesting that the consciousness of pain may be an important factor in their production. A practical deduction may be drawn, he suggests, from this, namely: That too large a bougie should not be forced into the bladder. Where he has reason to fear a rigor will supervene after the introduction of an instrument, he invariably prescribes a two minim dose of Fleming's tincture of aconite, to be given immediately after the operation. This he has found almost unfailingly effective. In the occurrence of a rigor, he generally uses quinine in 5-10 grain doses, combining in with aconite, when there are early indications of febrile excitement. In the management of suppression of urine, which more or less attends the severe cases, our efforts, he considers, should be directed towards securing the elimination of the excreta, which the kidneys fail to do. This may be accomplished by acting on the skin with vapour baths, or what is almost equally efficacious, by placing the patient in a hot bath, and then enveloping him in blankets. The infusion of digitalis, given frequently in teaspoonful doses, has been strongly recommended for its action on the kidneys when stimulating diuretics would be out of place.—*Lancet*.

## TREATMENT OF TRANSVERSE FRACTURE OF THE PATELLA.

At a late meeting of the Clinical Society, the president, Mr. George W. Callender, brought a patient fitted with an apparatus, which he had employed for some time past at St. Bartholomew's Hospital. It consisted essentially of a sheet of plaster, fitting to the thigh, and extending to the upper margin of the patella, with loops on either side of that bone, and of a canvas slipper between which, acting from the sole of the foot, and the loops in the plaster, such extension was made by means of pulleys as suffices to draw the upper fragment down to the lower portion of the broken bone. It was easy to regulate the tension, and when it was thought well for the patient to get up, the apparatus was left on, as it acted just as well when the man was walking about, as it did whilst he was recumbent in bed. Practically, the appliance had been found to insure very good results.—*Medical Times and Gazette*.

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## ABOUT BOOKS.

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*Landmarks, Medical and Surgical, By Luther Holden, F. R. C. S., from the Second English Edition. Philadelphia, Henry C. Lea, 1878.*

In this compact little volume the author, so well known by every dissecting room student for his larger work on anatomy, endeavors to indicate those points on the surface of the body by which we recognize the position of organs, blood vessels, and so forth, that lie beneath them or in their vicinity. It is a capital idea and no doubt will be duly appreciated by many a student, and many a practitioner as well. The term *landmarks*, has been chosen to convey the author's meaning, and it does so admirably, as any one will appreciate who has been lost in an anatomical sea and suddenly recollects some saving guide that shows him where the land is.

It is needless to say that the author is accurate in description and full in detail, while at the same time he is concise.

The body is divided into sections and each considered separately and systematically. The head first receives attention, then the face. The neck, the chest, the back, abdomen, perineum, thigh, buttocks, knee, leg and ankle, foot, arm, forearm and wrist, and hand follow in the order given. Then comes a short chapter on palpation by the rectum, and the book closes with a brief sketch of an examination per vaginam.

The work is one of great usefulness as a hand book, and will prove to be an invaluable companion to the busy diagnostician and operator, as well as one to be carefully studied and constantly referred to by the student.



## NEWS ITEMS AND NOTES.

**Death from Carbolic Acid.**—We take the following from the *British Medical Journal*. The case, taken in connection with the recent deaths from chloroform poisoning in the Insane Asylum, suggests the gross mismanagement and carelessness of officials in public institutions.

“We regret being called upon to record the death of a nurse in one of the Dublin Hospitals in consequence of her taking carbolic acid in mistake for wine. In the absence of any reported evidence as to whether the bottle was labelled or not, and as to the state in which the unfortunate woman was when induced to help herself to what, presumably, she mistook for a patient’s wine, we would only remark that the carelessness of hospital authorities in general is painfully evidenced by this case. We have, over and over again, seen the undiluted acid, and strong solutions of it, left in unlabelled bottles in the wards of hospitals in reckless proximity with similar bottles or vessels containing medicines or stimulants. Mr. Shaw has shown (*Journal*, vol., ii, 1877, p. 638,) that out of a total of seventy deaths by carbolic acid poisoning he has noted, twenty were caused by taking it in mistake for medicine. When we consider that eleven of these twenty deaths occurred in hospitals and other public institutions, the responsibility that rests upon the authorities of such institutions should make itself felt. In all the deaths reported to have occurred in hospitals from this cause, it would appear that the nurses had free access to the strong acid and had mistaken it for wine or medicine. There is no reason why carbolic acid in its undiluted form should ever leave the hospital pharmacy. For no ordinary purpose is it necessary to have a stronger solution than a five per cent. one in the wards, and in the majority of cases in which the acid is employed, a much weaker solution will suffice.

**Medical Uses of the Telephone.**—We have already recorded various experiments and suggestions with reference to the medical uses of the telephone. It has been in use in the house of a medical man during the last few weeks, to enable a member of the family suffering from an infectious exanthem, to communicate with her family and friends, and this application we would recommend as very practical to the managers of fever-hospitals and asylums. In the *Boston Medical and Surgical Journal*, we read that its utility in the class demonstration of auscultative signs of disorder of the chest, is being studied, with good promise of success. Professor DaCosta made a preliminary trial in March last, at the Pennsylvania Hospital, of a Bell’s Telephone constructed by Dr. W. B. Hopkins, a former resident. It was tested by cases of cardiac murmurs and different varieties of respiration, and, while the results obtained were not fully satisfactory, it was believed to be demonstrated that a slight modification in the construction of the instrument, enabling it to respond to more delicate impulses, would fit it for the purpose, and make it an almost indispensable adjunct to the clinical amphitheatre.

**Relaxation of Pubic Symphysis.**—Dr. J. Braithwaite, related a case before the Yorkshire Branch of the British Medical Association, which occurred after delivery. Movement of the pubic bones upon one another could be felt by the hand, on pressing upward either thigh as the patient was recumbent in bed.

**Dr. Brown-Sequard** has been nominated Professor of Physiology in the College of France, in succession to Claude Bernard. Being, however, a British subject (born in Mauritius), he must be naturalized in France before his appointment can be confirmed.

**Contagiousness of Phthisis.**—Dr. Tappiner, has proved by experiments in Buhl's laboratory, at Monaco, that phthisis is contagious. Mixing the sputa of consumptives with water, he caused five dogs to inhale the same in the form of spray. Two of the animals were also obliged to swallow a portion. After a lapse of six weeks the dogs were killed. They presented a general miliary tuberculosis of lungs, liver, and kidneys, and, in the two which had swallowed the matter, also, of the digestive apparatus. Carmine, which had been mixed with the inhaled liquid, showed that it had penetrated into the pulmonary cells. Professor Buhl established these results by making the microscopical examination. It is suggested that these experiments are an indication that the air of apartments occupied by phthisical persons, and not well ventilated may become dangerous to healthy persons living in the same quarters.

**Two Remarkable Accidents.**—The following notes we take from the *Scientific American*:—In the transactions of the medical society of New Jersey for 1877, Dr. Ryerson reports the case of a child which lived four weeks with over an inch of No. 1 sewing needle in the heart. Search for the needle before death was unsuccessful. At the autopsy it was found to have passed partially through the cartilage of the fourth rib, into the wall of the right ventricle. Pus welled up through the perforated cartilage, and loose, in an abscess holding an ounce or more of pus, in the muscular substance, lay the needle. It was supposed that until loosened by suppuration the broken end of the needle remained fixed in the rib, thus pinning the heart to the chest wall.

A still more remarkable accident, with recovery, is reported in the transactions of the medical society of Pennsylvania, for the same year. In this case a boy of fourteen was impaled on the end of a carriage shaft, the points of the shaft entering one inch below the left nipple and coming out at the back. The victim was swung three times into the air by the rearing of the horses, then pushed himself off, and walked home with some assistance. No cough or hemoptysis followed and apparently little shock, effusion into the pleura occurred with discharge of pus, front and back. This gradually lessened, and finally both wounds closed, the one in the breast last. The boy has recovered robust health.

# THE HOSPITAL GAZETTE

AND

## ARCHIVES OF CLINICAL SURGERY.

A WEEKLY JOURNAL OF MEDICINE, SURGERY AND THE COLLATERAL SCIENCES.

EDITED BY

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### LECTURES.

## CLINICAL LECTURE ON INCONTINENCE OF URINE, AND ON SYPHILITIC MENINGITIS.

Delivered at the University Hospital, Philadelphia.

BY

WILLIAM PEPPER, A.M., M.D.

Professor of Clinical Medicine in the University of Pennsylvania.

[REPORTED FOR THE HOSPITAL GAZETTE.]

*Incontinence of Urine.*—This little girl is about six years of age. She is one of six children. Of these children three have died, and one has been affected in the same way as this girl. The mother died of consumption. This child has suffered from incontinence of urine ever since she was a baby. She wets her clothing at all times. You see how pale and delicate looking she is. By incontinence of urine we mean inability to retain the urine, which is discharged at all times



unconsciously. This dribbling usually takes place at night—the bladder contracts and the contents are discharged. The discharge is not perhaps so much an unconscious as an involuntary act. Some cases of incontinence seem to be due to weakness of the sphincter—in still other instances it is the result of spasmodic contractions of the vesical muscles. It is sometimes difficult to distinguish between these two forms. Incontinence in children is generally dependent upon spasm caused by some local irritation.

The causes of local irritation are numerous. In treating a case the first thing to be done is to determine upon the cause. In certain cases the urine is exceedingly acid, containing a large number of crystals of uric acid. This over-acidity leads, of course, to irritation. In other instances, seat worms may be the cause of the disease; in still others, it may be due to some irritation of the mucous membrane of the rectum. In many instances the cause lies in some defect of the nervous system; a sort of chorea of the urinary bladder comes on. I think that there is some such nervous defect at the bottom of the vast majority of cases.

The treatment of incontinence varies according to the cause. If the disease is only dependent upon actual loss of power, the proper remedies are, of course, the bitter tonics, iron, etc. Minute doses of cantharides, strychnia and nux vomica do good as stimuli. Never subject the child to harsh threats, or brutal treatment. No child ever would do such a thing from mere naughtiness. The little patient should be spoken to kindly. Then proceed to treat the case in the following manner:

I. Remove the cause; if it be over-acidity, by alkalies, etc.; if there be seat worms, give an anthelmintic; if the digestion is at fault, rectify it by means of tonics, etc. II. Where the root of all the trouble lies in the spasmodic contraction of the muscles of the bladder, employ belladonna freely, push it up to its full constitutional effects. Gtt. v. of the tincture of belladonna, or from  $\frac{1}{20}$  of  $\frac{1}{16}$  a grain of the extract may be administered three times a day. The nervous tonicity should be brought up by means of the cold douche, tonics, and friction, and the bromides given in doses of 25 grains to quiet the local irritation. In the great majority of cases, if properly treated, the disease will, in time, disappear entirely.

*Syphilitic Meningitis.*—A. H., a sailor, resident of the state of Maine, 23 years of age. Was admitted on December 19th. Had swamp fever about two years ago. On November 28th, 1877, he was aloft in the rigging mending a sail when he was suddenly conscious of severe pains in his hips, knees and elbows.

Upon carefully questioning the man, I find that he had syphilis ten years ago, but that there were but few secondary symptoms.

After recovery from the attack of swamp fever there was, according to the patient, a partial ankylosis of the joints of the arms. The supra-trochlear glands were enlarged and the tissues indurated. In the man's hip also, just above the inguinal region on the right side, there was a very distinct hardness. Under anti-syphilitic treatment and repeated local blistering this induration was cured.

While improving very satisfactorily, on January 16th, the patient was seized with a very sharp pain in his head and went to bed feverish and with furred tongue. His treatment was by the bromides and laxatives. These remedies doing no good he was at once placed upon the use of mercurials. On January 19th he felt dizzy, and, in the afternoon of that day, had a bad chill with a subsequent temperature of  $101^{\circ}$ . At that time, the exact diagnosis of the case was uncertain. The weather was then very damp and there was a good deal of malaria about. I thought the attack might have been an imperfect development of malarial fever. (I, even then, however, half suspected the existence of some intra-cranial syphilitic disease. Such being the case, it seemed strange that the treatment was so ineffectual. Then, again, it struck me that the disease, by reason of its gradual onset and peculiar symptoms, was not unlike typhoid fever. Upon this presumption, I thought it better to give it the benefit of the doubt and join full doses of quinia to the anti-syphilitic treatment, which consisted of gr. xv. of the iodide of potassium and gr.  $\frac{1}{4}$  of the bi-chloride of mercury, thrice daily. The afternoon temperature still continued alarmingly high. On January 22nd the patient vomited twice and there was slight diarrhœa. On the 23rd there was retention of the urine for twenty-four hours, followed by delirium. The heart's action was much depressed, the extremities were cold and the man refused all nourishment.

The persistence of such symptoms after the continued and liberal use of quinia removed altogether from my mind the idea of malaria. I ordered the quinia to be stopped at once. Nor was it an attack of typhoid fever, for there were none of the characteristic symptoms. The belly was flat and not tympanitic and there was no eruption. On the 25th the pulse fell to 60 and became exceedingly irregular. It was then that I determined the case to be one of syphilitic meningitis with exudation exerting pressure on the cerebrum. The stupor, delirium and irregular pulse were at once made clear, as was also the immobility of the pupils and the elevation of temperature. I then increased the doses of the iodide and bi-chloride. To-day, I had the man's pupils dilated with atropia. The retinal circle was found to be greatly engorged—the margin of the retinal nerves showing the symptoms of incipient neuritis. This gave me full confirmation to my view of the case.

These cases of syphilitic origin are always to be dreaded. The characteristic symptoms are extreme headache and circulatory disturbance. The headache is sometimes fixed. Here it is in the occipital region. It is usually much more violent at night, as is the case here, and may be so marked as to give rise to pain upon pressure. Vomiting may, or may not be present. Vomiting is not so frequent in syphilitic as in tubercular meningitis. The bowels are generally torpid, or constipated. As the exudation goes on forming the pulse grows slower and the pupils respond but slowly to light. If the exudation forms rapidly the ophthalmoscope reveals distinct retinal disturbance.

Patients such as this one will die very soon unless treated efficiently



and promptly by large doses of mercurials and iodide of potassium. The iodide of potassium may be given four times a day in doses running all the way from gr. xv. up to ʒj. The tolerance of this drug in disease of a syphilitic nature is extraordinary. I have seen patients take from 180 up to 240 grains of the iodide daily without showing the least symptom of *iodism*. The man's pulse has become much more regular since the quantity of the iodide was increased. His intellect is still very slow. You can sometimes produce the so-called "meningitic streak" in such cases as this one by drawing your finger sharply across the surface of the abdomen. This sign when present it is slightly noticeable here is of considerable diagnostic value.

### CLINICAL LECTURE ON PERICARDITIS, AND ON FIBROUS TUMOR OF LIVER.

Delivered at the College of Physicians and Surgeons, New York.

ALONZO CLARK, M.D.,

Professor of Pathology and Practical Medicine.

[Reported for THE HOSPITAL GAZETTE.]

This man, who is a bar-keeper by trade, gives us the following history:

Previous to his present illness, he was perfectly healthy and never suffered from rheumatism. About six weeks ago, he was seized with a sharp pain in the left side of the chest. It pained him quite severely to draw his breath. He had some febrile symptoms, and was in bed eleven days. At the end of that time, though still feeling the same distress, he got up and went out to get fresh air. This shortness of breath and severe pain has continued to the present time, and he cannot yet go up stairs without somebody to support him, while even then he is compelled to stop and rest every few steps. Previous to his present sickness, he was never short of breath. He cannot sleep for any length of time.

This history leads us to suspect pericarditis, though, usually, it is not a painful disease, and we do not often hear patients complain of such severe pains as this man tells us he has suffered. However, we will commence our examination with the heart. I do not observe any marked swelling of the precordial region though the left side of the chest is a little more prominent than the other. On palpation, we find the heart beat to be indistinct and the impulse quite feeble. On auscultation, we find that the sounds follow each other with considerable rapidity, but the sounds are quite indistinct. I do not perceive any murmur, although it might be present and I not hear it, for the normal sounds themselves are very indistinct. On auscultation, posteriorly, I discover nothing abnormal. I listen behind, because, once in a while, a large pericardial effusion presses the lung backward, and produces bronchial breathing by compressing the pulmonary vesicles. One of my friends once mistook a case of pericardial effusion of this kind for pneumonia, because he got bronchial breathing and dullness. In the present case, there is nothing of the kind.



On percussion anteriorly, there is a pretty extensive region of dullness; it is not only dull over a large area, but it is quite flat in the central part of this region. The absence of impulse would lead us to the idea that there was no hypertrophy of the heart, yet the increased dullness would be in favor of it. There is, however, another explanation of the dullness, and that is pericarditis. Pericarditis would produce dullness in this situation, but it will also carry the region of dullness up as high as the second rib or the second inter-costal space. Let us then, ascertain this point more carefully. Towards the sides of the area of dullness, it reaches up to the second intercostal space, but in the center, it goes beyond this, up to the first intercostal space. You know that the pericardium, in extending on to the vessels at the base of the heart, forms a sort of pear shape, and when distended by fluid, the expansion takes place to a greater degree upward, in the center, than on the sides.

The patient, then, is undoubtedly suffering from pericarditis, with effusion, but there may be something else, as I infer from an abnormal fullness existing in the region of the liver. On examining that organ, we find that its area of dullness is not increased. The fullness begins on the left side and passes across the upper part of the abdomen to the right. There is a band of dullness which I believe is due to a distended colon, as it is situated over the position of that organ. On palpation, we feel a sort of pasty mass in which the fingers seem to make an impression. I think a dose or two of castor oil, or some other laxative, would relieve the condition.

I was myself, once, a laxative for a doctor who had a colon as big as my coat sleeve. I pressed my fingers into it and pushed along, thus starting the mass, and the result was more than a bucketfull of feces.

The only trouble then, appears to be a pericardial effusion, and no great amount of heart disease, if any. The most striking feature about the case is the amount of pain which, according to his story, has been very great. In nine out of ten cases the pain is not at all severe. There is quite a large amount of effusion present, and, as it has already lasted six weeks, I think it is going to be chronic, if we cannot call it chronic already.

As regards treatment,—I should try to get the kidneys to work immediately, and if we succeed the effusion may subside. If this means fails, we shall then have to draw the fluid off by puncture, through the pericardium. This is not a very old operation, and lately it has been successfully done a few times. It was usually reserved as a last resort, on account of the danger of wounding the heart, but in the present case, if we do not succeed in causing the absorption of the fluid in a short time, it would be quite justifiable.

The fluid is sero-purulent in character, in all probability. In acute cases we have no pus, but simply fibrin and serum. I once had a case, the record of which is in the New York Hospital, in which, on post-mortem, a gallon of fluid was found in the pericardium. I think it is the only instance in which so large a quantity has been found.

The right way for us to proceed in the case of the patient before

us, is first to try diuretics, and then if we do not succeed, resort to puncture of the pericardium.

#### HERCULEAN TUMOR OF LIVER.

The patient whom I now show you, says that he has been ill for some time, but continued to work up till about nine or ten weeks ago. About seven weeks ago, he noticed an enlargement in the abdomen, which was quite painful. He does not sleep well at night. He has lost all appetite, and says he is not able to swallow solid food. Has not been jaundiced. He has not been troubled with vomiting, only having vomited once, the matter ejected looking greenish, but not reddish or blackish. When he eats, it lies very heavily on his stomach, and he feels as if smothered, as he expresses it.

On examining the abdomen, it feels very hard to the touch, resisting like a board, just below the umbilicus, it yields a little, and there is a distinct edge to be felt. It feels lumpy, and there is at one particular point, on the left side, a mass, which seems to stand out distinctly. It is round, and about an inch or an inch and a half in diameter. It passes up and down with the breathing, showing it to be situated inside of the abdominal walls. There are smaller masses of the same nature in the neighborhood, but not many on the other side of the median line. The mass is lost under the ribs. Dullness on percussion extends up to the nipple. The mass measures  $12\frac{1}{2}$  by  $10\frac{1}{2}$  inches. The spleen is enlarged. The tumor is of course connected with the liver, as the line of dullness is continuous with that organ, and therefore there is nothing else that it could be connected with.

Only this morning I examined a child who had four omental tumors, and I concluded that they were omental, on account of a line where normal resonance was present between them and the liver. Here there is no such line, but the liver dullness is continuous.

The left lobe of the liver should extend normally, not more than four and a half inches to the left of the median line, while this tumor extends six and a half inches. The apex beat of the heart is quite distinct in its normal position, and strikes quite sharply against the wall of the thorax.

Now, the question comes up, what is this tumor? Of course it is hypertrophy of the organ, but with what? The lumps on the side might be one of three things, multiple abscess, carcinoma, and fibrous tumor. It is too large and hard for multiple abscess. They may be fibrous tumors, for they are hard, round, and stand out, and probably that is their nature. Real cancer has a cup shape, having a rim around and the border standing higher than the centre. I think, therefore, we have here fibrous tumor of the liver, with hypertrophy.

It is singular that there has not been more jaundice, but this shows that the duct has not been pressed upon. There is a slight tinge on the sclerotic.

The question next comes up, what can be done for this man? It is one to which it is difficult to find an answer. It is not likely that the iodide of potassium will do much good. You know it is often given to produce absorption, so we may try it. I should not have much

confidence in derivatives, such as blisters. As to diet, he must take fluid nourishment. The best form usually, is milk, but milk contains a good deal of fat, and fat is not desirable. The liver would not, I think, grow so large, if no fat be taken; let him have the white of an egg, the yolk being discarded on account of its fat, beaten up with water and flavored. The juice of beef is another good thing. A common beef-steak chopped fine and pressed, would contain but little fat, while it would furnish a good deal of nourishment.

He complains of not being able to swallow solid food, but I cannot see why. The pressure backward and downward of the liver against the stomach, is pretty strong, and it is likely that pressure may be made on the œsophagus, and in that way prevent swallowing. I do not believe that there is a stricture, or much physical inability to swallow food, it is probably because the food disgusts him that he cannot swallow.

## HOSPITAL RECORDS.

### MOUNT SINAI HOSPITAL, NEW YORK.

REPORTED BY BENSON W. FELDMAN, M.D., HOUSE SURGEON.

#### PURULENT OTITIS—MENINGITIS.

B. M.,—aet. 26.—Germany,—S.,—Tailor. Has been ill for five days. His trouble began with a stitching pain in the left ear; on the second day he had pain in the left side of the head. Two days before admission to the hospital, the left ear began to discharge a thick yellowish fluid. *On admission (Jan. 6th)* there was a profuse discharge from the left ear, ordered syringing

*Jan. 8th, 1878.*—Applied tr. iodine freely to mastoid process.

*Jan. 9th, 1878.*—Ord. ferri. sulph. and potass iodid, internally.

*Jan. 11th, 1878.*—Severe and continual headache, ordered ice-bag to be applied to head.

*Jan. 12th, 1878.*—Headache relieved by application of ice, but returns if the bag is removed.

*Jan. 14th, 1878.*—Cutting pain from left mastoid process to middle of frontal bone. Hearing disturbed. Right ear, 20 inches, left ear,  $\frac{1}{2}$  inch.

*Jan. 17th, 1878.*—Ordered ammon. bromid., grs. XV t. i. d.

*Jan. 18th, 1878.*—Considerable pharyngitis, ord. astringents to throat.

*Jan. 19th, 1878.*—Trace of pus at external meatus, audit. applied blister to mastoid process.

*Jan. 23rd, 1878.*—Ordered potass. iodid, grs. V. t. i. d.

*Jan. 28th, 1878.*—Headache, Formication in left ear.

*Feb. 3rd, 1878.*—Sleeps well. No pain.

*Feb. 4th, 1878.*—Discharged, cured.



## CYSTOPLASIA.

**I. M.**,—admitted Jan. 10th, 1878.—æet. 65.—Germany.—Widow.—*Diagnostics.*—Cystoplasia due to proplexy. Has had cystitis for past ten days, and being unable to pass any water, has been catheterized daily. Urine, 1.026 alkaline. Thick, turbid, purulent sediment; ordered acid tannic grs. v. q. 3 hor., strychnia sulph.  $\frac{1}{3}$  gr. t. i. d., and Faradic current to hypogastric region. Discharged cured February 15th, 1878.

## PYODERM. ACUTUM.

**I. K.**,—Female.—æet. 32.—Germany.—Married.—Admitted July 19th. About three and a-half months ago a small abscess appeared on the posterior aspect of right thigh, and every few days others appeared in different portions thereof, up to about three weeks ago, when they opened at intervals of two or three days, and discharged coagulated pus. Since then they have remained open, gradually increasing in size. Have been painless during entire growth.

*On admission.*—July 19th, 1877. Inflamed, depressed, irregularly circular ulcerations with thickened everted edges, at above mentioned points; ord. unguentum hydrarg. oxid. rub. to right thigh, sol. Donovan to left and ol. morrhuæ internally.

*Aug. 16th, '77.*—Another abscess appeared about the middle of right thigh. Ord. tr. aloës co. internally.

*Oct. 13th, '77.*—Temp. to date  $99^{\circ}$ – $99\frac{3}{4}^{\circ}$ .

*Sept. 13th, '77.*—(12 M.) had an attack of syncope. Gave ether gtt. 30.

3 P. M.—Epigastric region very tender; ord. spts. etheris co. 3 j.

9 P. M.—Another syncope.

*Sept. 19th, '77.*—Temp. to date normal. Patient being chloroformed, the actual cautery was applied to each ulcer.

*Sept. 20th, '77.*—(A. M.) temp.  $105^{\circ}$ . Had a circumscribed erysipelas of left thigh. She was at once isolated, ordered, tr. ferri chloridi and quinia sulphat.

*Sept. 28th, '77.*—Temp. to date,  $100^{\circ}$ – $103^{\circ}$ – $104\frac{1}{2}^{\circ}$ . Erysipelas has entirely disappeared. Pt. feels quite well; ulcers healing rapidly.

*Oct. 24th, '77.*—Temp. to date,  $99\frac{1}{4}^{\circ}$ – $100^{\circ}$ .

*Oct. 31st, '77.*—Discharged, cured.

## FRACTURE OF DORSAL VERTEBRA.

**E. P.**,—Female,—æet. 22.—Austria,—single.—domestic.

Fell, three days ago, from a second-story window, striking upon her back on some sharp object. Was unconscious at the time of injury. No loss of sensation or motion followed. Suffered from retention of urine for two days; has passed considerable since yesterday.

*On admission.*—(Aug. 2nd,) absence of spinous process of last dorsal vertebra with pain at this point, increased by motion. Has had no stool for five day.

*Aug. 9th.*—No increase in lardosis. Ord. pepsine, gr. V. t. i. d.

*Aug. 14th.*—Applied a water-glass, silicate of soda jacket. Had an attack of syncope while suspended. Gave spt's ammon. aromatic.

*Aug. 15th.*—Pain on micturition for past two days.

*Aug. 16th.*—Ord. nux vomica in addition to pepsine.

*Aug. 21st.*—Swelling at vulva, applied linseed meal poultice.

*Sept. 5th.*—Ord. kali iodid. grs. XXX, and unguentum belladonnæ to thighs, as upper part of both feel nodular.

*Sept. 12th.*—Small vascular growth at meatus urinarius. Vagina covered with punctate congestion and white flaky mucus. Uterus anteflexed. Has hysterical convulsions almost daily. Temp. always normal.

*Nov. 4th.*—Discharged, improved.

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## TRANSLATIONS.

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### CHRONIC GASTRIC CATARRH.

BY

DR. C. F. KUNZE.

Translated from the German, for THE HOSPITAL GAZETTE.

BY

PAUL H. KRETZSCHMAR, M.D., of Brooklyn, N. Y.

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*Anatomy.*—Chronic gastric catarrh extends but seldom over all parts of the stomach; most frequently the pyloric end only is affected, not so often the fundus, and but rarely the part towards the cardiac orifice.

The principle changes which take place after the disease has lasted for a length of time consist: I., *In the change of the color of the mucous membrane.* Especially in those cases of chronic gastric catarrh which originate from a chronic state of passive hyperæmia, from a deranged condition of circulation, the mucous membrane is found to be of a dark bluish red color. This change of color may either be observed symmetrically distributed all over the affected parts or it may appear in patches. Occasionally small extravasations of blood are scattered over the surface. Instead of the evidence of existing hyperæmia, very often only the sequences of a previous hyperæmic condition are found; the color of the mucous membrane is very dark gray or even black from the deposit of pigment in the sub-mucous tissue, and into the gastric follicles. II., *Either in attenuation or in thickening of the mucous membrane and the muscular coat of the organ.* The attenuation occurs sometimes to a high degree, the walls of the stomach are smooth and pale, but covered to a large extent with particles of gray pigment.

The glands are shortened, their cells are small, and without the granular contents as usually found. The cavity of the stomach is very large and distended. Oftener than the attenuation of the muscular coat occurs thickening of the mucous membrane and of the muscular coat. Sometimes the thickening extends over a considerable distance, at other times it occurs on different places, and covers

only small pieces of surface. The latter appears puffy, uneven, warty, *état mamelonné* of the French writers in consequence of the proliferation of the connective tissue, which pushes itself through "and grows pinlike between the numerous groups of gastric follicles" (Ebstein). Such a condition may be differentiated from folds which result from muscular contractions only, by the fact that these folds and wrinkles do not disappear if the mucous membrane be stretched. Sometimes in chronic gastric catarrh, the roughness of the inner surface of the stomach depends on the dilatation of the peptic glands, "the cells of these are filled—as is found also in acute gastric catarrh—with a large number of small granular albuminoid molecules of an opaque appearance" (Förster). Occasionally the thickening is due exclusively to the hypertrophy of the follicles, which form wart-like excrescences, and generally appear in lines like palisades. Polypoid catarrh. Such hypertrophied follicles may be easily mistaken for peptic glands. In rare cases small globular tumors are found, which are pediculated and situated on the mucous membrane. Klebs says that the largest part of these tumors consists of elongated glandular ducts with many ramifications, vessels of considerable size passing through in all directions. (Oedema of the stomach).

Cystic degeneration of the glands has also been observed, the individual glands being filled with a pulpy mass, and forming vesicles, rise above the surface of the mucous membrane. *The formation of erosions of any kind or of gastric ulcers, during the course of chronic gastric catarrh, is an exception to the rule.*

The thickening of the muscular coat depends on a simple increase in the number of the primitive muscular fibres, as can be seen best after treating a specimen with chlorate of potash. Förster shows in his pathological anatomical atlas, a clear picture of hypertrophy of the muscular coat of the stomach. The picture shows very plainly that the ultimate cells of the muscular fibres—if the muscular coat of the stomach be thickened—differ in no respect from normal tissue, but they lie so crowded that it is only with great difficulty that they can be separated. The muscular hypertrophy is most marked at the pyloric orifice, gradually diminishing towards the cardiac end of the organ. At the former point the diameter of the muscular coat may be as great as 3 or 4 lines, and even more, and the formation of a stricture may be the result. The appearance on cutting through the diseased tissue, resembles very closely that of scirrhus. The different layers of the interstitial connective tissue, have on close examination, a fanlike appearance, and the resemblance may be considerably increased, if the submucous tissue has taken the characteristic features of fibro-cartilaginous tissue, and if the mucous membrane itself becomes hypertrophied. It has been claimed by different writers, that true scirrhus may develop from these scirrhotic conditions, but histological researches have failed to justify the statement.

*Actiology.*—Chronic gastric catarrh is a disease which is very frequently met with, and statistics show that it affects males more often than females. The disease may develop itself from an acute attack, especially if the patient has been attacked more than once: or it may



*begin* as a chronic affection. All causes which are liable to produce acute gastric catarrh, will bring on chronic gastric catarrh, if they act less violently but more constantly. Almost as a rule chronic gastric catarrh affects habitual drinkers and more especially those who have used alcoholic liquors for a long time. Next to this most fruitful cause of chronic gastric catarrh, is the excessive and continued use of all kinds of harsh drugs, a very frequent cause of the disease. Many of the gastric difficulties which are so apt to occur after a severe attack of some acute disease, are often due to a catarrhal condition of the stomach, produced by the administration of large quantities of medicines. Chronic gastric catarrh often depends on passive hyperæmia affecting the vessels of the stomach, such as occur in all disturbances which interfere with the freedom of the portal circulation. Of the numerous causes for the deranged condition of the circulation through the liver, may be mentioned, cirrhosis of the liver, consolidation of lung tissue, emphysema of the lungs and affections of the heart. And it is worth mentioning that in tubercular disease of the lungs, especially during the first stage of the disease, the gastric symptoms may present themselves so prominently, that it may be quite difficult to render the correct diagnosis. Chronic gastric catarrh accompanies always ulcerations, erosions and cancer of the stomach, and the subjective symptoms in either of these difficulties may be due to it only. Why it so frequently accompanies a condition of relaxation of the muscular coat of the intestines and obstinate constipation—as found so often among females—is a question which has not been satisfactorily answered as yet; and the same must be said in regard to the chronic gastric catarrh occurring in conjunction with rachitis.

*Symptoms.*—The examination for chronic gastric catarrh is best made after the patient has taken a full meal; in such a condition all the local symptoms and signs are intensified.

In all cases of long standing it can be observed that the epigastric region is more vaulted and that the size of the stomach itself is enlarged. The latter may take place to such an extent as to enable the observer to recognize its exact shape and size on the surface of the abdomen. The percussion sound is generally dull over a considerable space, but it is normal in cases of short standing. The distention of the stomach is always in proportion to the size of the stricture at the pyloric end of the organ. The larger the stricture, the longer is food kept in the stomach, the more certainly will it undergo decomposition and produce foul gas. Of course in such cases where the stomach is expanded by gases, the percussion sound is markedly tympanitic and on palpation the stomach presents a peculiar resistance, simular to that of an "*air cushion*" Bamberger. If on careful examination the contour of the expanded stomach has been marked on the surface with ink or nitrate of silver, it will be observed that after vomiting, when the stomach has discharged its contents, the size of the organ is considerably diminished and the epigastrium is sunken in. Another prominent symptom of chronic gastric catarrh is the sensation of fullness, tension and pressure on the stomach, of which the patients complain after eating. This unpleasant feeling generally lasts for from

one to two hours, and is finally relieved by frequent eructations. The epigastric region is tender, most markedly so over the pyloric end and over the small curvature of the stomach.

Women are often rendered unable to wear their dresses tight around the waist. The unpleasant symptoms in the stomach are increased by taking food in inconsistent form, while nourishment in the liquid state and easily digestible, generally agrees better with the patient. There are however, many exceptions to this rule and occasionally it even happens that articles which are generally considered quite indigestible, are well borne. In the intervals of meals the patients often suffer from severe heartburn. The appetite may be wanting altogether or the patient takes his food with disgust. Some patients experience a desire for highly spiced articles. It is well known that habitual drinkers eat but very little, but whatever they take must be "piquante."

If chronic gastric catarrh depends on the continued and excessive use of alcoholic stimulants, a catarrhal condition of the mouth and pharynx is almost constantly observed, and in the morning the roof of the mouth, the tongue and the teeth, are coated with a large quantity of phlegm, so much so that it is sometimes difficult to clean these parts. In this class of cases a condition is frequently met with, known as "Vomitus matutinus," which consists in vomiting of thin, watery substance, generally of alkaline reaction, early in the morning, while the stomach is empty.

This matter is made up of large quantities of mucus, a part of which has been swallowed during sleep, the greater part, however, originating from a hypersecretion of the mucous membrane of the stomach. Among temperate patients also, vomiting of large quantities of mucus often occurs. The matter which is thrown up, often contains the "sarcina ventriculi," a fungous growth, which is made up of quadrangular cells of slightly reddish-brown color, having somewhat rounded corners. Each of these cells is subdivided into 4 chambers by two lines crossing each other. These chambers sometimes contain a small nucleus. According to the examinations made by Itzigson, sarcina has its origin, probably, in a species of *oscillarius*, which grows as a green, velvet like turf in the wells of the country, being taken into the stomach with the drinking water.

*The tongue.*—is generally found to be coated and most markedly so in the upper third: this depends on the catarrhal condition of the pharynx which is found almost constantly occurring with chronic gastric catarrh. As a rule, the taste is diminished, but sometimes neither tongue nor taste are markedly affected. The movements of the *intestines* are rarely normal, if the catarrhal affection does not extend over other parts than the stomach, if, on the other hand, the disease is not limited to that organ but affects more or less the small intestines also, it is often observed, that several thin, watery evacuations take place early in the morning without repeating themselves during the day. If gastric and intestinal catarrh has lasted for some time, it is very apt to affect also the common bile duct, thereby producing a remarkable sallow look and the peculiar grayish-yellow hue of the face, which is so very characteristic among habitual drinkers.



*Natural History.*—The course of chronic gastric catarrh always extends over a number of years, and temporary variations in the condition of the patient, changing between comparative ease and severe attacks, are very often experienced. Finally, the nutrition of the patient becomes impaired, he emaciates, mental depression takes place, and the prospects for final recovery becomes smaller and smaller. Especially if, in case of old drinkers, continued and considerable emaciation has taken place, it may be regarded as a valuable sign of the coming dissolution, it is only exceptionally that the physician's care and good management can prevent the fatal result.

In most cases dropsy occurs in the larger cavities of the body and through the areolar tissue, the patient's strength and vital powers diminish gradually, and death is taking place by asthenia. If chronic gastric catarrh be treated successfully—but the prospect of doing so is generally not favorable, except in cases of short standing; both primary and secondary assimilation gradually becomes more normal, the appetite increases, the skin loses its peculiar appearance, the mind brightens up, etc. But there always will be a disposition to the return of the disease, and some slight disturbing influence is liable to produce a new attack of the old trouble.

*Differential diagnosis.*—Often it is very difficult to distinguish between neuralgia of the stomach, gastralgia, and chronic gastric catarrh. In many cases the pain occurs in paroxysms only, or if it can be relieved by deep pressure, as well as by the introduction of a heavy meal, there can be no difficulty at all in diagnosing a case of gastralgia. At other times, however, gastralgia does not so clearly define itself. Pain does not attack the patient at regular intervals, but it may be continuous, changing only from time to time in severity, and pressure in the epigastric region may, just as in cases of chronic gastric catarrh, increase the suffering. This form of gastralgia is quite frequently found among females. If such a difficult case presents itself, the detection of the aetiology, the history and the duration of the disease, together with the experimental administration of certain remedies may be of great diagnostic value.

Habitual drinkers are properly classed among the subjects for chronic gastric catarrh, and if the patient belongs to that class, presenting also a catarrhal state of the mouth and pharynx together with intestinal derangements, the indications are strongly in favor of chronic gastric catarrh. If, on the other hand, the patient suffers from neuralgic pain in some other parts of the body, or if the nervous system generally is debilitated and irritable, as is found so frequently among hysterical females, and sometimes after great mental exertion among males, gastralgia should be suspected. Further, if, during the year the patient has painless intervals for a month or longer, and if afterwards the pain recurs daily, and if no mistake in diet can be detected, it is probable that the disease is of neuralgic origin. In cases of chronic gastric catarrh, well marked intervals of pain are rarely observed, *the patient has more or less pain all the time*. Another valuable sign for diagnosis is the final impairment of the nutrition, which follows gastric catarrh; people suffering from gastralgia hardly ever experi-



ence the same kind of emaciation. In differentiating gastralgia from chronic gastric catarrh, we should never fail to consider the effect which the administration of stimulants has on the patient. Brandy, mustard, strong coffee and other articles of similar properties generally increase the difficulty in chronic gastric catarrh, but they often relieve the pain in cases of gastralgia. Exceptions to this statement however occur not unfrequently.

The differential diagnosis between chronic gastric catarrh and gastric ulcer, can be made only, if, besides the symptoms of the catarrhal condition, hæmatemesis has taken place at some time, indicating a solution of continuity. Without the latter symptom it may often be difficult and sometimes impossible to render a positive diagnosis. If hæmatemesis has occurred formerly, once or oftener, even if years have passed since, and if the pains are almost constant, being of a sharp, cutting, lancinating or compressing character, situated in the region of the epigastrium, inflammatory adhesions (peritoneal) in the neighborhood of the former ulcer should be suspected. A case of that nature occurred a short time ago among my relatives. Six years ago a man of 58 years of age had a copious hæmatemesis, no recurrence has taken place, but he suffers since that time almost constantly from very severe pain in the region of the stomach. These pains are so severe as to produce frequent attacks of syncope. In this case there is no reason to doubt that a former gastric ulcer has produced certain peritoneal changes, which are the cause of the patient's sufferings.

Chronic gastric catarrh should also be carefully differentiated from cancer of the stomach, and this too may often be quite difficult, except if previous hæmatemesis or a tumor felt in the epigastrium assist in arriving at the right diagnosis. Indeed, it is often observed that the subjective symptoms in a case of cancer of the stomach are identically the same as in chronic gastric catarrh. However, there are certain points, which carefully considered, will help to clear up the case. Patient's suffering from malignant disease of the stomach almost always die before the end of the second year. If the disease be of longer standing, its malignancy may be excluded on that account.

The state of the patient's nutrition is another valuable diagnostic sign. In cases of chronic gastric catarrh the condition of nutrition is moderately good for quite a period of time, and it is frequently observed that habitual drinkers—even those suffering from chronic gastric catarrh for some length of time, present a surplus of adipose tissue. If on the other hand cancer of the stomach is developing, emaciation in a marked degree takes place early in the course of the disease. The sallow, earthy, "cancerous" appearance of the patient, together with the puffed, wrinkled condition of the skin, is so characteristic in its nature, that the experienced observer frequently suspects malignant disease without further evidence than the signs just mentioned.

Bamberger claims that sarcinæ found in the matter vomited, oftener indicate cancer of the stomach than chronic gastric catarrh.

*Treatment.*—Only exceptionally can the cause of the disease be easily removed.

In some cases a common "cold" may produce a chronic gastric catarrh, and Trousseau has properly stated that chronic gastric catarrh may originate from a sudden change of temperature, or from exposure to cold and wet, just as well as a bronchitis, coryza, cystitis, endometritis, etc. He also states that this class of cases could not be successfully treated by the use of the mineral-waters of Carlsbad, Vichy and Plombières, but by sulphur baths, hydrotherapy, and surf baths. We will add to this that patients suffering from chronic gastric catarrh, which was produced by such extrinsic influences, should pay a great deal of attention to their way of dressing. They should keep the body and more especially the abdomen warmed, and it is advisable for them to wear woollen bandages, so as to keep the stomach always covered. All cases of chronic gastric catarrh which originated from exposure or other influences of that nature, will be markedly benefitted by such means as produce a more active condition of the skin, viz., warm bathing, Turkish bath—or, if properly administered, diaphoretics. If the catarrhal condition of the mucous membrane of the stomach depends on an obstruction of the portal circulation, in which large class of cases the region over the liver is apt to be tender—cupping in the right hypochondriac region, leeches ad anum; blisters over the epigastrium and mild laxatives are indicated. If there is a disposition to rapid decomposition of food in the stomach, with frequent eructations of a sour taste, antacids should be employed, viz., carbonate of magnesia, calcined magnesia, lime water, bicarbonate of soda in small doses dissolved in sweetened water, or the alkaline mineral waters of Selters, Vichy, Bilin and Ems. Creosote is sometimes very beneficial; it may be administered in pill form or in solution:

℞	Creosoti, gtt. xij. Succ. liquivit. Pulv. rad. liquir aa 2.0. M et ft. massa, et in pilul, No. xxx div. S. one pill three or four times a day.
or ℞	Cresoti gtt. vj. Syr. simplic, 30.0. Aquæ puræ 90.0. M. ft sol. S. Tablespoonful as a dose.

In many cases of chronic gastric catarrh depending on causes mentioned above—exposure to cold and wet—good management and careful regulations of the patient's diet, will often suffice to cure the disease. The regulation of the patient's diet forms a most important part of the management of cases of chronic gastric catarrh, *but there are no rules which could be laid down, answering for all cases.* Very frequently it is found that an exclusive *milk diet* can be employed, as was first tried extensively and recommended by Kruckenberg. If this line of treatment be chosen, milk should be the patient's only nourishment for a length of time, and no food of any other kind should be administered. The milk may be given either fresh, boiled or not

boiled, or sour, the cream being skimmed off, or in the form of buttermilk. Sometimes patients prefer milk soup, milk with rye flour boiled in it, and they may live on it for a long time. If milk disagrees with the stomach, or if the patient does not like to take it, the diet should be changed, and starchy food might be tried; the administration of this kind of food should never be continued for a long time. There is again a class of patients for which starchy food does not answer at all.

Not unfrequently articles of a more stimulating character agree better with the patient, viz. Caviar, salted herrings, smoked lums, good beef tea in small quantities, cold meat, especially young venison, or chicken, old Port and Burgundy wine in moderate doses.

Many articles are absolutely injurious, and among them are rye-bread, all kinds of cheese, potatoes, pies, nuts, salads of any kind, fat dishes—with the exception of fat fish. It is remarkable that fat salmon is generally borne very well. Of the fluids may be named strong coffee, lager beer, and especially alcoholic drinks, such as whiskey, brandy and rum. Good Rhine wine and Moselle agree with most patients and often have some beneficial influence over the disease.

In most cases it is necessary to watch the patients carefully, as most of them have to fight against old and bad habits, and they are so very apt to allow themselves deviations from the proper diet. Of the long list of drugs which have been recommended in cases of chronic gastric catarrh, the most prominent are: *subnitrate of bismuth, opium in small doses, and nitrate of silver.*

Among other formulæ the following are frequently chosen.

℞	Bismuth subnitr,	1.0.
	Sodæ bicarbon,	1.5.
	Opi. pulv.,	0.1,
	Sacch. alb.	2.0.
M. ft. pulv. et in chart, No. v. divid.		
S. one powder, 3 times a day.		
℞	Pulv. opii.,	0.15.
	Sacch. alb	2.0.
M. et ft pulv. et in chart, No. x, divid.		
S. one powder, 3 or 4 times a day.		
℞	Argent nitrat cryst.	0.2.
	Succ. liquit.	
	Pulv. rad. liquir, aa	9.0.
ut fiat massa et in pil, No. xx, div.		
S. one pill 3 times a day.		

Some practitioners give both the subnitrate of bismuth and the nitrate of silver in much larger doses, of the former 0.5 to 1.0, and of the silver preparation from 0.03 to 0.1 as a dose. According to my own experience, bismuth given in doses of 0.3 answers in the majority of cases, but occasionally a case is met with, where a larger quantity is indicated. Such small doses of the preparations of bismuth as 0.03—as were given formerly—are of no value. Frequently bismuth and opium are given combined and it seems to me as if the combination



acts better than either of the two remedies used by itself. Nitrate of silver is as a rule only employed after bismuth and opium have been tried without success. Nitrate of silver given internally sometimes produces severe pain in the transverse colon, and is the cause of obstinate constipation, if administered for weeks and months, it may be followed by a very remarkable discoloration of the skin, *Argyria*. This very unpleasant result of the long continued administration of nitrate of silver appears to many physicians as a warning apparition and prevents them from using this frequently very beneficial remedy. The fear of producing *argyria* is often exaggerated. It is of comparatively rare occurrence, does not make its appearance, always, even after long continued use of the silver preparation, and, even if it occurs, it shows itself very gradually first, as a few gray spots on the forehead and around the temples.

If, at that period, the remedy be omitted, and some strong salt water baths, together with purgatives be given, the deposit of pigment in the skin does not progress.

Of the different kinds of mineral waters, those of Carlsbad have the greatest reputation for their curative power over cases of chronic gastric catarrh. *Lægen* formulates the indications for the use of Carlsbad water, as follows: "Carlsbad has proved itself the most reliable remedy in case of chronic gastric catarrh, *if there is considerable tenderness over the stomach*, if the sensation of fullness and of pressure is felt after each meal, and if highly spiced food or stimulating drinks, or fluids which contain much carbonic acid, produce pain and uneasiness. It is not a matter of importance which one of the different springs be used, *and the effect is equally good, whether the water be taken at the spring or at home*. Mühlbrunn, the water which is mostly exported, should be used in the following way: the bottle is placed in hot water and kept there until its temperature is raised to about  $21\frac{1}{2}^{\circ}$  C  $70^{\circ}$  F. *Small quantities*—two or three wine glass-fulls should be taken in the morning, fasting, followed by a walk of half an hour or an hour's duration. The bowels, which sometimes become constipated after the use of Mühlbrunn, should be regulated by the administration of some light laxative. An important part of the management during the use of mineral waters, is the regulation of the diet. *The patient must live on a small diet, and positively avoid all alcoholic drinks*.

After the continuous use of one of the Carlsbad springs for five or six weeks, the treatment may be omitted, but great care should be taken in *returning gradually to a full diet*.

The waters of Marienbad are indicated when the region over the stomach is not tender; when obstinate constipation complicates the chronic gastric catarrh, as is found to occur so often among patient's living a sedentary life, when continuous backache, or a sensation of heaviness and fullness in the right hypochondrium exists, when there is some dyspnoea, and when dizziness in the head, together with other symptoms, indicate some obstruction in the portal circulation, or point to a condition of hyperemia in the vessels of the spinal cord. The purgative effect of this water has a beneficial influence in depleting

the vital organs. The patient should take one or one and a-half bottles of the water every morning, fasting, and always follow it by a long walk—five or six thin evacuations of the bowels are the general result.

If the patient is much emaciated, it may be necessary to combine with the mineral waters of Carlsbad or Marienbad some one of the springs which contains iron. (Ester, Pyrmont, Eger, Franz, Sp., Driburg) or it may be advisable to give the patient the benefit of salt-bathing as a general tonic. At the same time, it is often indicated to employ the bitter tonics. (Nux vomica, tr. cinch. co., columbo, gentian roots, etc.) Many practitioners like very much a combination of iron and quinia. I administer frequently small doses of quinia with iron in the following way:

R                      Ferr. carbonate, 0.3.  
                           Quiniæ sulph., 0.02.  
                           Sacch. alb,        0.6.

Dispens. tal. dos. No. xij, S. one ter. in die.

This iron preparation is easily digestible, and therefore well adapted for those patients whose digestive system is more or less deranged.

Another preparation which is valuable in cases of chronic gastric catarrh in anæmic patients, is ferr. sacchar. solub. Hornemanis. from 10 to 20 grains, to be taken 3 times a day.

## PERISCOPE.

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DISLOCATION OF RIGHT THIGH UPON THE DORSUM ILII OF SIX MONTHS STANDING. DISLOCATION OF LEFT THIGH, WITH FRACTURE OF THE NECK AND NECROSIS OF THE HEAD; FALSE ANCHYLOSIS OF LEFT KNEE IN FLEXED POSITION; REDUCTION OF DISLOCATIONS; EXCISION OF HEAD OF LEFT THIGH, AND ESTABLISHMENT OF SERVICEABLE FALSE JOINT; EXTENSION OF ANCHYLOSED KNEE AND RESTORATION OF MOTION; CURE. BY PROF. GEORGE E. POST, M.D. —*Med. Record, May 11th, 1878.*

This is the somewhat elaborate title of a very interesting but very brief paper and which is farther illustrated by two wood-cuts. It is greatly to be regretted that in the report of a case so remarkable, there should be so little of detail as to circumstances and symptoms. A girl, æt. 13, had been pushed down, twisting her trunk and extremities in opposite directions as she fell, causing a dislocation of both

hips, and a fracture of the neck of the left femur. An accident so unusual in the history of surgery, and especially in its manner of causation, would seem to demand some explanation as to the supposed mechanism of the accident, and a full description of the history from date of accident, of the signs upon which the diagnosis was made out; but upon these important points there is almost nothing except that her thighs and legs were strongly flexed upon her body and thrown to the left, that there was a sinus leading to the head of the femur on the left side and that the injury occurred about six months before she was seen by Dr. Post. The left head, being separated from the shaft, was removed by an incision. (It is scarcely proper to apply the term "excision" to this operation.) The ankylosis of the left knee was overcome by *brisement forcé*, causing much laceration.

Finally, the dislocation of the right hip was reduced, apparently with great ease, by manipulation, showing, as the writer says, "that bone-setting is a matter of address and attention to anatomical relations rather than of force."

Several pieces of necrosed bone subsequently escaped, her "general health" is now perfect, and she has very useful limbs. It is not said whether the wound has closed.

We deem it our duty, in calling attention to this interesting case, to make these criticisms upon the character of the report. We desire that our journal shall be a *reliable* record of *facts*, and it is due, therefore, both to the distinguished operator, and to our science, that a more complete account of the case be furnished before it shall be accepted as established in all the points assumed.

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FRACTURE OF THE PATELLA. INJECTION OF ANIMAL MARROW BETWEEN THE FRAGMENTS. BY JOHN A. WYETH, M. D.—*Medical Record, May 11th, 1878.*

Dr. Wyeth, late demonstrator of anatomy in Bellevue Hosp. Med. Coll., and who is widely known for his valuable and original contributions to Surgical anatomy, has in this paper given an account of the successful treatment of an ununited fracture (a re-fracture) of the patella, made under very unfavorable circumstances. This is very difficult of accomplishment under any circumstances, and the profession will be greatly indebted to him for the ingenious apparatus which he devised for his patient, and which is explained by a wood cut

The injection of two drachms of marrow from the thigh of a sheep just killed, into the space between the fragments, was in imitation of the experiments of M. Ollier & Goujon, who found that "marrow transplanted into the muscular tissue will *frequently* generate bone." The results were negative, the union being fibrous, not bony. He rightly argues, however, that as the circumstances were exceedingly unfavorable, the failure in this case ought not to deter us from a repetition of the experiment in other cases. The injection caused no disturbance.



## NEWS ITEMS AND NOTES.

**A Rebuke to Professional Newspaper Notoriety.**—At the meeting of the Medical Society of New Jersey, at Spring Lake, N. J. on May 29th., a committee reported the name of Dr. Sayre for honorary membership, in recognition of his distinguished services in the profession. The report was violently opposed by Dr. Ryerson, who charged Dr. Sayre with having violated the code of ethics by having published his portrait and memoir some 15 or 20 years ago in the *Police Gazette* of New York. The report was accordingly recommended, whereupon the committee, of which Dr. J. S. Green, of Elizabeth, Dr. Sayre's satellite and champion, was the chairman, resigned in a body. After the election of officers for the ensuing year, the vote recommending the report was reconsidered, and Dr. Sayre was elected. Soon after this Dr. Sayre met Dr. Ryerson, and in his characteristic language, we are informed by the *Sun*, said "Dr. Ryerson, what do you mean by these charges? What you have said is unqualifiedly false and untrue. You have disgraced yourself, sir; and until you make an apology or prove *them*, either you or I *is* unfit to be a member of this society". To this mild language Dr. Ryerson replied, that the paper was handed to him in Dr. Sayre's office. Dr. S. then admitted that the portrait and sketch did appear, but without his authority, but that the paper was not the *Police Gazette*.

Dr. Ryerson deserves great credit for thus publicly challenging such newspaper notoriety and advertising as the above, and although he failed to prevent his society from sanctioning it, still he has succeeded in showing to the profession, one of the secrets of undeserved success, and has stigmatized the practice by having seven out of 38 votes of the oldest society in the country recorded against it. Although the record of these was subsequently expunged from the minutes, we record them here. The thanks of the profession are due to Dr. Ryerson.

**Atropia vs. Opium.**—Dr. J. Milner Fothergill recently restored to life a woman already *in extremis* from the effects of a large dose of laudanum by the injection hypodermically, of a full grain of the sulphate of atropia, the largest medical dose yet recorded.

**Jefferson Medical College Hospital.**—The Senate of Pennsylvania has passed the bill making an appropriation of one hundred thousand dollars to the Jefferson Medical College Hospital, which is the second appropriation of this amount to Jefferson. The University of Pennsylvania also tried for one hundred thousand dollars at the same time, but as they had already had two appropriations amounting to two hundred and fifty thousand dollars, the house refused to pass the bill.

# THE HOSPITAL GAZETTE

AND

## ARCHIVES OF CLINICAL SURGERY.

A WEEKLY JOURNAL OF MEDICINE, SURGERY AND THE COLLATERAL SCIENCES.

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[The editors hold themselves in no way responsible for the views expressed by contributors.]

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### EDITORIAL.

#### THE HYPODERMIC INJECTION OF MORPHIA.

A physician, at the present day, without a hypodermic syringe in his pocket, or close at hand, is looked upon as would have been a medical man fifty years ago, did he not own a lancet. In fact, in the comparatively short period of time that has elapsed since it first came into use, this instrument has advanced with wonderful rapidity in the general favor of the profession, it being now very extensively used.

As almost all disease, especially acute affections, have pain as a prominent symptom, and as the hypodermic injection of morphia usually produces a rapid and very agreeable cessation or amelioration of the distress, we are often led to administer the drug in this way, when it is not really necessary; the mouth and rectum being at our service. We do it, because having the instrument at hand, but little trouble is entailed, and we are pretty certain to give almost immediate relief, which, if the patient is suffering much, is what he wants, and



which, if we accomplish it, raises us in his estimation. Then too, we are led on by the force of precept and example.

That this method of administering morphia is a valuable aid to the careful physician, there is not the least doubt, and that it is being used unnecessarily often, there is quite as little doubt. And further, that even in cases where its use was clearly indicated, when given in but small doses, and in the hands of very careful men, most distressing and even fatal results have occurred, has been proved beyond question.

In its favor we have the rapid absorption of the drug and its equally rapid action on the system in those cases where such rapid action is desired, also in cases where the stomach and rectum reject all medicine. Wood (Therapeutics, Materia Medica, and Toxicology, Phila., 1877, p. 218) says, "The advantages of the method are the quickness of the results and the increased power of relieving suffering, which the remedy seems to acquire \* \* \* \* \*

but it must be borne in mind, that sometimes they cause most unpleasant results. I have seen very alarming results from the injection of the one-sixth of a grain, and half a grain has produced death. In females, unless very robust, the maximum dose should be one-eighth of a grain; in men, one-sixth to one-quarter."

These are strong words, and, though they bear their meaning plainly on their face, are disregarded by fully one-half the profession. That deaths every now and then occur in this and other cities from such disregard, is undoubtedly true. That this is the case here, we are assured by a very prominent medical gentleman, professor in one of our colleges, who says that he has been present at several autopsies where morphia, given in this way, was the undoubted cause of death. Dr. E. Fletcher Ingals, in an able and well grounded paper in the May number of the *Chicago Medical Journal and Examiner*, calls the attention of the profession to the danger of administering morphia in this manner. Of fifty-five replies which he received from circulars sent to prominent physicians of the Northwest, thirty-four said they had seen no unpleasant effects whatever; six saw nothing more serious than abscesses at the point of injection, and the remaining fifteen all noticed bad results in some cases, death occurring in seven instances from this cause. Dr. Ingals vouches for the good standing and veracity of the gentlemen who reported these cases to him; he withholding their names "for obvious reasons."

In two of the fatal cases the amount of morphine given was not stated. In one of two cases reported by one man, death resulted from the hypodermic injection of one-fifth of a grain of morphia, combined with one-seventy-fifth of a grain of atropia. "Another reports two deaths: one, from two doses of morphia, of one-third of a grain each, with an interval of four hours between the first and second doses. In this instance the morphia was given to relieve the intense pain attending invagination of the intestines. Death from narcotism ensued six hours after the second dose. The other death reported by this physician, resulted from one-quarter of a grain given in a case of sciatica. The patient died comatose within five hours. Another



reports a death caused by two doses of one-quarter of a grain each—the first given internally.”

In another case, a woman upon whom ovariotomy had been performed, death resulted from two doses together, amounting to one and one-half grains, uncertain an interval of five hours between the doses. In from fifteen to twenty minutes after the last dose, profound narcotism showed itself, and the patient died in two hours, although the most approved treatment was tried. Another case is reported where the patient, suffering severely from myalgia, was first given one-sixtieth grain atropia, and no amelioration following although the physiological action of the drug showed itself, one quarter grain morphia was injected, followed in about three-quarters of an hour by one-quarter grain more, as the man was still groaning with pain. In about two hours the patient was found to be deeply narcotized, and, although everything possible was done, he died twelve hours after the last dose of morphia.

Many others, though not recording deaths, bear emphatic testimony to bad results, such as syncope, general numbness, prolonged sleep, (twenty-four hours in one case where the one-twelfth of a grain was given) etc., etc.

Many of us have resorted to this form of administering morphine almost every week, some oftener, and never having had any bad results, feel that in *our* hands, at least, no accident could happen. Although the feeling is natural, in the face of the facts given, it partakes more of egotism than of common sense. As the constitutions and conditions of our patients vary, so will the danger vary.

Even if this method of administering morphia was entirely without danger, and the cases reported by Dr. Ingals fabrications, or deaths from other causes, there is no reason why the drug should be given in this way, in cases where the mouth and rectum offer good absorbing surfaces. As we have said before, where there is a call for rapid absorption, and rapid and powerful action of the drug, or when the stomach and rectum are so conditioned as to render the use of the morphia in that manner impossible or unsatisfactory, then its administration hypodermically is called for, and only then.

We are told by several of the visiting physicians to our hospitals here, that they are firmly convinced that the hypodermic injection of morphia is carried to excess both as to the number of cases in which it is given, and in the doses administered. A physician of good standing in this city was heard to remark not long since that when “called to a case where he was puzzled as to diagnosis or treatment, he gave a stiff hypodermic of morphia, and awaited developments.” Is it then any wonder that the opium habit is so common? In these days of hurry or bustle we often fail to consider the remote as well as the immediate effects of potent drugs on the human system.

Two of Dr. Ingals cases show very plainly that the combination of atropia with morphia is no safeguard against the occasional evil effects of the latter; and further, that morphine cannot, as many suppose, hypodermically at least be given freely during pain, in the belief that the drug is used up in combating the distress.

Any gentleman who has used a hypodermic syringe very much, will testify to the fact that there are few instruments as liable to get out of order as this. Moreover, the comparison of a number of syringes by different makers, and by the same maker, demonstrates the fact that not only does one vary from another in the amount contained, for the same markings on the barrel or stem, but that some contain less by five or six minims than the amount marked on the indicator.

The subject of the hypodermic injection of morphia is one well worthy the study of the profession, and if the few facts and observations here recorded shall lead others to give the subject a fuller and more careful consideration, we shall feel well satisfied.

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## LECTURES.

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### CLINICAL LECTURE ON AORTIC AND MITRAL REGURGITATION.

Delivered at the Philadelphia Hospital.

BY

JAMES TYSON, M.D.

Professor of Morbid Anatomy and Pathology, and Lecturer on Physiology in the University of Pennsylvania Medical School.

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[Reported for the HOSPITAL GAZETTE.]

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#### AORTIC REGURGITATION.

I. M. ; 40 years of age, engineer ; born in Ireland ; admitted to the hospital on July 19th, 1877. Family history good. Had been much exposed to extremes of heat and cold ; had syphilis several years ago, (syphilis is a very common cause of valvular disease of the heart and has always been a hard drinking man. He was perfectly well up to the year 1874, when he had an attack of hemiplegia of the left side without loss of consciousness. In two months after this attack he was well enough to walk about, but did not recover the use of his arm. On February 9th, 1876, he had another attack, on the left side ; two months later his right leg was affected. Throughout all this time his right arm was never touched by the paralysis. Two months ago his intellect was temporarily lost, and still later his legs began to swell. To-day his mind is entirely normal, but he has paralysis of the sphincters causing incontinence of urine and feces. Sensation is present in all of the paralyzed limbs both legs and the left arm, but is somewhat imperfect. The urine is slightly albuminous and contains triple phosphates, oil casts, and granular epithelium.

As we consider the man's past history to-day as sketched out above we find nothing which points to cardiac disease except the swelling of the legs some weeks ago. He was a very ill man indeed when I took charge of him at that time. Now the swelling has altogether gone except in his feet. I find to-day that his feet have almost regained their normal size. When he first came into my wards he could not

lie down at all, now he is perfectly comfortably in the recumbent position.

I propose to make a thorough physical examination of the patient in your presence to-day.

*Pulse.*—84 to the minute, volume good but soft and compressible.

*Heart.*—Upper border of heart's dulness is found to be in the third interspace. In health it is the fourth interspace, or over the fourth rib. The right lateral border of dulness is a little to the left side of the sternum; normally it is at the junction of the costal cartilage with the sternum, we cannot therefore say that the area of dulness is much extended towards the right. The apex beat is just below the left nipple—it should be an inch below and to the right of the left nipple. The heart is therefore pushed over to the left, there must consequently be some hypertrophy of the left ventricle. So much for the percussion signs.

Upon careful auscultation, I hear, placing my stethoscope over the mid-sternum, two murmurs, one systolic and the other diastolic. At the apex the heart sound is not as distinct as it should be, but the first murmur has entirely disappeared and the second murmur is only heard faintly. This persuades me that there is no mitral disease. I now place my stethoscope over the site of the second costal cartilage on the right side, the aortic cartilage. Here I can easily distinguish a very clear sound. This murmur is carried up into the carotids, and intensified when the man stops breathing. This murmur must be aortic, it is during diastole—during the diastole the auriculo-ventricular valves are open and the aortic and pulmonary sigmoids are closed. Evidently this diastolic murmur can only be due to insufficiency of the aortic leaflets—a small amount of blood regurgitates with each closure of the valves.

But is this all the trouble? I am not so sure about that at present, before the class, I am unable to make out any other abnormal signs. I am, however, from examinations made in the quiet of the ward, inclined to believe that there is some aortic stenosis. I heard a systolic aortic murmur yesterday. I will, however, make another careful examination before making up my mind on that point. In the wards I thought I could distinguish a murmur at both apex and base. There was also, a basic systolic murmur, that looks like mitral disease also.

This case presents exactly that form of heart disease in which hypertrophy is most prominent. This hypertrophy is a direct result of the increased action of the heart. In mitral disease there is usually hypertrophy with dilatation.

As regards the cause of the patient's sickness the well authenticated history of numerous attacks of hemiplegia affords us a very valuable clue. The man has had syphilis. As a consequence of that disease there has probably been a gummy tumor thrown out which presses upon the spinal cord. This tumor is probably inside of the spinal membrane. It is located so high up in the cord as to cause paralysis of one of the arms. This same syphilitic disease has no doubt also brought on atheroma of the arteries thus causing vegetations of the valves of the heart.



Two months ago when the aortic disease was not so prominent I ordered digitalis for the man, but digitalis did him no good, and why, you will ask. Digitalis is indicated in cases where the mitral valves solely involved and where there is decided failure of the heart's action. The treatment was immediately altered and gtt. V. of the tincture of the root of aconite were administered thrice daily. In seventy-two hours there was very marked improvement noticeable in the case, and even since that time the man has been getting gradually better. I never expected him to be so well as he is to-day. The improvement I may say, I think, has been constant.

So soon as the acute cardiac symptoms abated I put the patient on the use of strychnia and stopped the aconite. With regard to the prognosis of heart disease; it is a well established clinical fact that we can never permanently cure valvular disease of the heart, our treatment should therefore be chiefly directed towards the relief of the patient. We do this by unloading the venous congestion and by a well chosen and general tonic treatment. This patient is now well enough to be sent to the paralytic ward where he can wheel himself about with his one remaining unparalyzed member and so break up to some extent the monotony of confinement in bed.

## II. MITRAL REGURGITATION.

This woman has been sick since Easter. Her feet and legs are very much swollen. Her hands are not swollen. The dropsy is therefore not universal and so we can at once exclude the idea of kidney disease. She complains of pain in the pit of the stomach and shortness of breath. These symptoms have been constant since the beginning. The stomach is slightly swollen.

Upon percussion I find the upper border of cardiac dulness entirely normal. The right lateral border of dulness is much further to the left of the sternum than is natural. The heart can not therefore be hypertrophied.

Auscultating the chest at the mid-sternum and at the apex, I find a very distinct murmur at both places—intensified at the apex. This murmur is not heard at the aortic cartilage nor at the base. So much as concerns the site of the murmur. Now as regards its time. The murmur is evidently systolic, a mitral regurgitant.

This case is a very useful one as illustrating one interesting clinical fact. Do murmurs displace the natural sounds of the heart, or do they not? I never heard both natural sounds and murmurs so distinctly as in this case. I hear here all three sounds—the normal first sound, the mitral murmur and the normal second sound.

This is the most common form of heart disease. The insufficiency of the mitral valve forces the blood back into the left auricle, thence into the lung, thence to the right ventricle, thence into the venous system, and thence into the portal system; so bringing on oedema of the feet, legs, and abdomen.

This case is preeminently one for the use of digitalis. This woman will be given gtt. XV. three or four times daily. How are we to get rid of the dropsy? one of the best means at our command is by the

use of mercurial purges followed by saline cathartics. In private practice I should order gr. iij. of blue mass every night to be followed by half a tumblerful of Hungadi Janos water in the morning. In place of the mineral water sulphate of magnesia may be given. The cause of the disease is specific in this case also.

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## ORIGINAL ARTICLES.

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### INTERVENTION OF PHYSICIANS IN EDUCATION.\*

BY  
E. SEGUIN, M.D.

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MR. PRESIDENT AND CONFRERES: I said to you last year "New social and individual wants demand new solutions of the problem of education; and most of these expected solutions rest with the physician and physiologist." This implies no personal criticism of our teachers, whom we consider superior to any equal number of women and men anywhere. It is simply the re-assertion of a fact concerning the evolution of the idea of education.

According to the object of societies this idea differs. Now that children are sent to school no more by scores, but *en masse*, imperfections have become apparent in the American Public School, which did not appear in our old District School—once a model for less advanced nations. Now it is our turn to reform, if we have the least pretention to keep the leadership. But looking only homeward—as children outgrowing their clothes must be supplied with larger ones—so our next curriculum must be enlarged to meet the demand of the American people for ampler development of their destiny.

In this respect, the managers of our school-system have already erred for not perceiving that the present schooling—superficial in some things, barren in others—has, besides many government-leeches, turned in stores, and out of the farm or skilled manufacture, more able-bodied drones than it is healthy for a nation to feed in girl's occupations. These managers ought to have understood that educating millions is a different affair from polishing a few privileged; no scholastic or Chesterfield's nonsense in the idea of universal education.

But because education was ever before a class monopoly, the present *concept* of "educating in the masses the working aptitudes" had hardly been the object of a thought of the thoughtful. True, Rousseau had declared that each man must have, besides a fair education, a trade, and Prince Albert had given a trade to each of his royal children. But the prince of syllogism and the prince of common sense were not to the liking of the ruling sharpers of their time; so that it is but recently that the idea that "everybody must be educated to produce enough for his own wants and those of a least a wife and child, or of an aged or crippled relative," lighted up our moral atmosphere like a revelation; as came to our forefathers the ideal of equality, of

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\*Read before the American Medical Association at Buffalo, June, 1878.

which our present ideal of the duty of labor for all is but a corollary.

This new social element—as indelible as a baptism—must take the child at his entrance in school, carry him through it, and out of it, stronger, healthier and better gifted for the enjoyment of his liberty. That will be the gain of a physiological education; that is what Descartes foresaw when he prophesied that if mankind as a kind could be improved, it would be through the progress of medical science. The realization of this prophecy is at hand, since we clearly see the part that the physician will take in their education.

1.—*During Vacation*, the physician in charge must have supervised the school, seen that everything is clean, and uncleanness almost impossible; that the grounds be drained in the right direction, and shaded on the proper side; that lights be kind to the eye; that the books, charts, images, and the like be duplicated in several types to suit the different conditions of vision; that the desk fit the progressive ages, and the seats the diversity of shape of the children, particularly of the girls—according to the admirable directions and drawings of Liebreich.

2. *Before Entering the School* the pupils must be scrupulously examined, and their status minutely recorded, as much as possible in figures, with the metric system and centigrade thermometers, in regard to:

Their general appearance; condition of skin and glands; relations of age to size; relations of size to weight; relations of proportions of parts, or relations of proportions of head to face; relations of proportions of trunk to limbs; conformation and proportions of head; conformation and proportions of mouth; conformation and proportions of ears; conformation and proportions of eyes; conformation and proportions of hands; irregularities of both sides; spinal anomalies carefully surveyed; breadth and thickness of the chest; circulation; respiration; temperatures,—central, local, superficial; possible differences on the two sides.

Remarks on the influence which the above conditions must have on the general and special training of the child, what to avoid and what to look for for him in the school.

3. *Before Alloting a Child to a Class-Room*, and in it to one place in relation to the teacher and teaching apparatus, let us consider and note the reach and degree of precision of his sensory organs, and particularly, wherefrom will he see and hear best? Otherwise placed, his senses may grow worse; or the erectile tension of their organs, which causes the attention of the mind, being found useless will slacken, and the desire for learning will die away in proportion to the impairment of the senses, as to the consciousness of the inutility of further efforts. Many educations have failed for this neglect of the physiological conditions of some mode of perception. For the eye let us be guided by the table-tests of accommodation, and for the ear, follow those of Sapolini and Milano. The defects so stated it is easy to see from time to time if they are growing less or worse.

By hygienic cares and a wise progression of acoustic exercises, the hearing may be improved in the school; but for the eye the school con-



ditions are almost fatally adverse. Since there is an incessant demand for the eye to look, mainly in a maze of speck-letters, if the eye was healthy at first, from constant reading it may become sick; and if already sick, it will grow worse in a progression which has been calculated, and found commensurate to the duration of the curriculum, and to the intensity of the studies in this wise: "All myopic eyes are diseased," says Donders. In the first year of reading 0.4 of the scholars become myopic; in the second 4.8; in the third 8.6; in the seventh 11.3; in the ninth 24.1; in the eleventh 49.5 and the proportion increases also in proportion of the intensity of the studies; according to authorities too competent to be doubted, too numerous to be named.

Would not it be humane in teachers to acknowledge their incapacity to deal alone with this problem, and to require, instead of shunning a physiological examination which would indicate what types the children must be given to read, and other cares to be taken at school of their sight? Thus only could be stopped the fearful increase of myopia, which seems to tend to make men the rivals of the fishes of the Kentucky Mammoth cave. Some say it matters little as long as we can only buy spectacles. On this score it would be better yet were we born with this astride ornament. But myopia, and other eye affections of school origin, are more than physical disease and infirmity; they create most regrettable incapacities, as of exercising many select industries, and most of the fine arts. They have also a decided influence on the mode of formation of judgement, which, in short, or otherwise ill-sighted people is biassed by the necessity of looking at things not as they are, but as they are imagined or liked to be.

Three remedies or prophylactics can be prescribed by the school physician, with the view, if not to cure myopia, at least to stay its progress. One already hinted at is the use of books and other prints, whose types must correspond to the visual accommodation; another the supply of an abundant and unique light the one coming from the left being preferable; the third to transfer most of the studies, exercises, and amusements in the garden-schools, summer-schools, natural history and drawing excursions, in which the eye is invigorated in distant and placid horizons.

At the same time, the school physician will have discovered other defects of the senses and of the muscular functions. Among them the difference of contractility, therefore of liability of the two hands, native or resulting from the habit of not using the left when the right works or plays. A habit which secures a ticket for later hemiplegia, unless the school-physician makes the children use both hands; and in case the difference is proven extreme or progressive by dynamometry, he must make the weak side work for two. An every morning medical survey is expected from the school-physician; first as a quarantine measure against the introduction, in the crowd, of children contaminated by zymotic or contagious diseases, the suspected ones to be kept under observation in regard to the pathological temperatures and other signs which precede the specific symptoms by several days; second, as a means of discovering the simulated diseases as well as the

dissimulated ones the innocent being so crafty, as in the following case just come to my notice: "A ten-year old school-boy in Holyoke, Mass., refused to do his writing lesson because he could not lift his arm to the desk, and examination proved that his collar-bone was broken. This had happened two days before, and he had performed all his other duties since, sooner than acknowledge the accident, for fear of being punished."

During the session, and particularly at the changes of season and of temperature, it is important to note the effects of the course of studies on the children. Their mind, which was a blank when they entered the class-room, is no sooner set to work at intellectual or mathematical combinations of facts, ideas or figures, than the rhythm and number of the pulsations are changed, the heart beats stronger, the blood flows to the head through the visibly increased calibre of the arteries, the volume of the head is increased too, the general temperature is higher, that of the head considerably so, sometimes that of the one side only or of the base, whilst that of the extremities has cooled. Call it if you please an intellectual perturbation, but its action on the physique cannot be overlooked, since its frequent recurrence every day threatens danger.

In former papers I have quoted the fate of scholars killed by the congestive and combusive processes of thinking. Last fall another was added to the fatal list, the worthy grandson of the physiologist Richerand; and this spring offers in holocaust the poet laureate of Yale College. The New York Female Normal College has its martyrologue too; and I doubt not that our public school has its victims, since I attended quite a number of its children sick from over-work.

5. At this point the physician must interfere in education. Comparing the present condition of the functions to what they were on entering the school he sees what alterations have taken place. If there is any, he must study the differences of pulse respiration, temperature, urea, etc., before and after the morning and evening sessions, and if the differences found justify his interference, he must order the child out; to the garden-school, summer-school, in drawing and natural history excursions, or at least several times a day up to the *solarium* which can easily be arranged on the flattened roof of the school-house.

Reverting from these hygienic and prophylactic duties to more educational ones, the physician will have to create and organize.

6. The physiological training of the senses and of the hand executrix of thoughts; not as a criticism of the intellectual culture but as its complement.

a.—As early as the primary department, the senses are to be trained to perceive phenomena to the utmost of their natural precision, and the hand to execute the dictates of the will with force or delicacy, altogether with the rapidity of conduction of the nerve-apparels. In this class would be developed the taste of the artist, artisan or cultivator, and formed forever these manual dexterities of the hand: prehension, pression, pressure, facts, contracts, etc., whose excellence have

prepared the success of the mighty laborers, Morse, Gavaret, Faraday, and confers the sceptre of surgery.

These natural treasures refund could be bestowed very cheaply among the masses who need them most, and where they would raise enormously, without further expense, the quality, beauty and value of all hand-products.

(b.) But as the child progresses in his intellectual education, the training of his senses and hand must take a more elevated form. After having operated unaided, they have to be taught the *modus operandi* of the instruments and methods which give a farther reach than nature to their senses, and a more unerring power to the hand executive of the will.

By this double acuminatation of the senses and of the hand the child has strenghtened his instruction by an almost illimited range of powers to do best what he will like best. Moreover, besides having been taught to perceive the infinite smallness and in magnitude (instead of only reading about it) his philosophy will be proof against the fooleries of the past; and ready to tender to nature the reverence it deserves, he will feel himself like embedded in the constantly enlarging realities and ideals of this world, as in his true Alma Mater University.

7. All the while the school physician continued to keep his record of the vital powers; noted in graphics or in figures their progress, retardation or retrogression, pointing to the causes thereof; so that when the teacher will dismiss the pupil with his certificate of capacity in the branches of learning, the manager of the vital functions will add a summary of his physiological powers of perception, of action and of endurance—which is, after all, the hard-pan of all capacity. In a word, the teacher's certificate will tell what the aspirant to manhood knows, and the physician's what he can.

Make up now the sum of these individual powers and that of the National powers requires only a simple addition. The Nation will feel and know her strength.

If anybody supposes this plan to be Utopian, let him look at its partial realization in an older, but less important branch of the public service. The armies—in other respects barbarous organizations—are fifty years I hope no more in advance of the school—an instrument of progress in other than this respect, *i. e.*, the necessity of a more physiological education. In proof of which assertion, two instances forcing themselves here, will detain us but an instant, and I have done.

The expedition of Abyssinia succeeded only because the medical staff of the English army had tested the worth of every man by the method of physical diagnosis, and with the instruments of positive observation, allowing none to join the picked band whose temperature, respiration, two pulses and cardiography had not given normal results. So selected, the valor of these men proved to be equal to their worth; their heroism was natural, and the victor of Magdalla was not Hercules, but Escalapius.

To this achievement of the Anglo-Saxon physician let us add another won by our Army Medical Corps. To Drs. Woodward,



Billings, Baxter and their associates are due those medical and surgical reports and tables of vital statistics which demonstrate all previous prejudices notwithstanding the superiority of size, proportions, weight and endurance in the field and in the hospital of the neo-American.

With a living material more numerous and more sensitive to the changes to be observed, when will the American school be able to show something like this last triumph of army medical science? When school physicians will not be confined to look at the privies instead of playing in education a part much more important for society at large than that of the surgeon in the army. This improvement will commence when the Laplaces, Aragons, Cuviers, Humboldts, Virchows and Littres of this country will be the school authorities.

We live in an age in which the old motors have ceased to move; when credoes are replaced by analysis; when the duty of working at his best becomes general; when, in order to work, everybody needs his physiological aptitudes to be trained as productive capacities; when the public and private records of the school will alone furnish the measure of the capacity of each and of all.

Who will take that duty in charge?

It may be considered hard for men who have spent in studies more than a third of their probable career to devote the rest to a part of their profession so little remunerative, and so fraught with enmities. But these considerations—though strongly appealing to egotism—are powerless against the fiat of a ripe idea. The idea of a more physiological education has ripened out of the failure of scholastic and classical education, like a rich kernel bursts in leaves and fruit out of half rotten manure.

The irrepressible want of modern times is that all men be educated; all educated men must work; education must prepare them to work at their natural best; this preparation is obtained best by a physiological training; physicians alone can carry that training and give a scientific authenticity to its record; it must be done, therefore they must do it; because—above other causes—the folly of to-day is the wisdom of to-morrow.

A word more and I close this invitation to physicians to take their natural part in education: Some put the riches of this country in its mines, some in its commerce, some in its manufactures, some in its immeasurable breadstuff, some in its inexhaustible herds, but do not believe them. The true riches of this country—without which all others are like chips in the mouth of the hungry—are our children, if physiologically educated.

If I have imparted to you my conviction, you will name a commission to examine the practicability of the intervention of physicians in education, and to report on the same at your next meeting.

## HOSPITAL RECORDS.

## MT. SINAI HOSPITAL, N. Y.

Reported by BENSON W. FELDMAN, M.D., House Surgeon.

## EPITHELIOMA OF THE RECTUM, LUMBAR COLOTOMY.—RELIEF.

E. E———. Male, aet. 40. Russia. M. Hatblocker.

*Family History.*—So far as he knows, there neither is nor has been any cancerous disease in his family.

*Past History.*—Has always been a perfectly healthy man up to the commencement of his present illness, with the exception of hæmorrhoids, which first appeared about his fourteenth year. From that time until his thirty-first year, they troubled him only about four times; then appearing externally as small, hard lumps, that, while causing some distress, gave rise to no positive pain, at each of these times there was a little bleeding. His bowels were always regular.

Two months ago he began to suffer intense pain in the rectum; passed considerable blood before and after stool, and noticed that he was loosing flesh very rapidly. It was at this time also, that he first noticed pus in his evacuations. The pain and tenesmus were so severe and continuous that he lost much sleep at night, and found no position comfortable during the day. Emaciation, increase in pain, and the "bearing down" sensation grew worse daily, and he sought relief in hospital.

*On admission,* (July 8th, '77), the above mentioned symptoms were noticed. On examination, there was seen a small bluish elevation around the sphincter ani, while about one and a-half inches above the sphincter were found a number of hard, lobulated elevations, especially marked on the anterior wall of the rectum. The urine was examined and found to contain neither albumen nor casts.

*Sept. 1st.*—During the past two month's there has been no improvement whatever in the patient's condition. Pain and tenesmus still very severe. Temperature always normal. There has been some dysphagia, with enlarged glands under the lower jaw; this, however, passed off in a few days. The stools have been numerous, liquid and bloody, and contain considerable pus.

*Sept. 11th.*—On consultation with the medical and surgical gentlemen of the hospital, it was decided by the majority that removal of the rectum was out of the question, as the disease had extended too far up the gut, especially on the anterior surface of the rectum, where it ran up about two and a-half inches. It was thought best to do Amussat's operation for producing an artificial anus.

*Oct. 8th,* (3 P. M.).—The patient being etherized, Dr. Daniel M. Stimson proceeded to perform the operation of lumbar colotomy.

Owing to defects in the syringes on hand, the gut was but imperfectly inflated with air. The patient was placed upon his abdomen, somewhat inclined to the right side, a pillow being placed under the left side to render the loin sufficiently tense and prominent. An oblique incision three inches in length was made midway between the crest of the ilium and the line of the ribs; the center of the same being about one inch behind the central point of the crest of the ilium. Two small arteries were ligated. The outer edge of the quadratus lumborum having been reached, it was cut through and a mass of intestine at once showed itself. This proved, however, to be the small, instead of the large gut; the latter not being sufficiently distended to come into view. Owing to this condition, considerable search was necessary to expose the colon. When found and exposed it being recognized by its longitudinal bands the necessary sutures were passed through it; it was opened longitudinally, and stitched to the integument about the edges of the incision, room being left for the introduction of two drainage tubes to the very bottom of the wound. The parts were dressed with carbolized oil and cotton.

The patient recovered well from the ether, and at once experienced great relief, the distressing symptoms that had, before the operation, harassed him day and night, having entirely disappeared.

*Oct. 11th.*—Passed feces from the lumbar opening. Considerable deep suppuration from the unavoidable handling of the parts in searching for the colon. Primary union took place everywhere except at the points where the drainage tubes were, it, however, healing kindly after their removal. From this on the patient did very nicely.

*Jan. 1st, '78.*—Discharged improved.

*[June 6th, '78.*—Pain returned in full severity about three months after the operation, as also the tenesmus. For the past month has been unable to sleep much nights, and is in constant pain day and night, unless he has several hypodermics of Magendie's solution of 30 minims each. For some time has had pain in the bladder. Is now obliged to use a catheter. Pain in the bladder more intense after micturition than before. Urine bloody and offensive. Pus and blood from the rectum. He is greatly emaciated. Has cough and purulent expectoration.

On examination the disease of the rectum is found much increased; the hard elevations extending up the gut beyond the reach of the finger.]

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## NEWS ITEMS AND NOTES.

**American Medical Association.**—The 29th annual meeting was held at St. James' Hall, Buffalo, on June 4th, 5th and 6th. The association was called to order by the President, Dr. T. G. Richardson of New Orleans, after which prayer was offered by Rev. L. Van Bokkelen, D.D. At the close of the prayer Dr. Thos. F. Rochester of Buffalo, Chairman of the Committee of Arrangements, was introduced and delivered an address of welcome, extending to the members an invitation to visit points of interest



in the city, and assuring them that all the physicians of Buffalo were most heartily at the service of the association.

The secretary reported 330 delegates as registered, and announced that he had received charges against various medical societies and protests against the acceptance of certain candidates for admission, which, on motion, were referred to the Judicial Council.

President Richardson then addressed the meeting, calling attention to what had been accomplished by the association in elevating the standard of medical education in the United States and urging that the agitation of this all-important subject be continued, as it is only in this way that the current of reformation can be kept in motion. He called attention to the fact that original investigation was very much neglected in this country, and proposed to encourage such researches, that the Federal Congress should be petitioned by the entire profession, to establish means for pursuing investigations in connection with the Army Medical Museum and Library of the General Government, which has, unintentionally no doubt, already founded a school which, through the influences just indicated may possibly be made the nucleus of a great national institute, in which original research in all the sciences upon which medicine more immediately draws shall be conducted, with the same wisdom and efficiency as characterize its present management. Another plan to encourage investigation the President suggested would be for the association to offer four annual prizes of not less than two hundred and fifty dollars each, to be awarded at the close of the second year after announcement, for strictly original contributions to medical and surgical progress.

The important subject of State Medicine was next considered. State Boards of Health had been established in the following states:

Alabama.....	1875	Massachusetts .....	1869
California .....	1870	Michigan.....	1873
Colorado.....	1876	Minnesota.....	1872
Connecticut.....	1876	Mississippi.....	1877
Dist. of Columbia.....	1871	New Jersey.....	1877
Kansas.....	1875	North Carolina.....	1877
Illinois.....	1877	Tennessee... ..	1877
Kentucky.....	1878	Rhode Island.....	1878
Louisiana.....	1870	Virginia.....	1871
Maryland.....	1874	Wisconsin.....	1876

Education of the people in the laws of hygiene was urged as the best means of securing efficient legislation in regard to these matters; and also the establishment of a National Council of Health, composed of members from every state in the Union, who shall cooperate with and assist a sanitary department which should be established by the general government.

#### SECOND DAY.

Prof. Henry Smith, Chairman of the section of Surgery and Anatomy, then delivered his address, taking for his subject: "Certain points on the Pathology of the Bones, especially Tubercle." After alluding to the opinion of former years that the skeleton was

intended to support the body, he mentioned that recently a new function had been assigned it, the bones being now regarded by many as a "focus for the origin of the white and red corpuscles of the blood and through which serious diseased matter was introduced into the general circulation."

After showing its connection with septicaemia and blood poison, he discussed the original progress of tubercles in the bones, and their influence on Pott's and hip disease, both of which he thought were of tubercular origin.

The address was a very able one, and occupied the closest attention of the Association for nearly an hour. It was referred to the Publication Committee.

Dr. Frank H. Hamilton of New York, by request, next presented the essential features of the able paper prepared by Dr. E. Seguin, of New York, on "The Intervention of Physicians in Education," read by the author before the Section on State Medicine and Public Hygiene the previous afternoon. He stated in explanation that it was owing to Dr. Seguin's inability to speak fluently the English language that he appeared in his stead.

On motion of Dr. Toner the paper of Dr. Seguin was referred back to the section for publication.

When Dr. Hamilton had concluded the reading of extracts from the paper he said that it was hoped that the paper would be well discussed. Accordingly he spoke at some length upon the subject matter, dealing principally with the hygienic affairs in New York, and emphatically endorsed the paper. His remarks were interspersed with characteristic witticisms and the whole was listened to with marked attention, the applause at the close denoting the approbation of the Association.

Owing to the lateness of the hour, further discussion, the President announced, was unavoidably prevented. Dr. Hamilton, therefore offered the following resolution, which was unanimously adopted:

*Resolved*, That in the opinion of this Association medical men ought to have a voice in the construction and location of public school buildings; in the question as to the age at which children should be admitted, the hours of study, and the general management of these institutions; and to this end it is believed to be necessary that one or more intelligent physicians should be placed upon Boards of Education, Boards of Trustees, and upon other similar boards having the control of public education and schools.

The usual ten minutes recess was now taken to select the committees on nominations.

#### THIRD DAY.

Dr. A. L. Loomis of New York, Chairman of the section on Practical Medicine, Materia Medica and Physiology, was then introduced and delivered an able, exhaustive and interesting address. He noticed some of the important advances made in Practical Medicine, Physiology, and Materia Medica, and also discussed at length the climatic treatment of pulmonary phthisis. His address concluded with the following practical suggestions:

It seems to me that the necessities of our time are demanding the establishment not only of well organized and thoroughly equipped sanatariums by the sea, in the mountains, in the cold regions of the North, and in the warm regions of the South, but that our mineral springs should be utilized for the care of disease. No one doubts but they are equal if not superior to those of the old world, yet to-day we know more of the virtues of Karlsbad, Kissengen, Vichy, and Hunyadi waters, than those of Saratoga, Virginia, Arkansas, and Colorado. Has not the time come, gentleman, when some organized action should be taken in this matter?

#### REPORT OF THE COMMITTEE ON NOMINATIONS.

After due consideration the Committee on Nominations respectfully report that they have nominated the following gentlemen for the various offices named, to wit:

President—Theophilus Parvin, M. D., of Indiana.

Vice-Presidents—A. J. Fuller, M. D., of Maine; W. F. Westmoreland, M. D., of Georgia; John Morris, M. D., of Maryland; John H. Murphy, M. D., of Minnesota.

Treasurer—Richard Dunglison, M. D., of Pennsylvania.

Librarian—Wm. Lee, M. D., of District of Columbia.

Committee on Library—John Eliot, M. D., of District of Columbia.

Next place of meeting—Atlanta, Georgia.

Time of meeting—The first Tuesday in May, 1879.

Assistant Secretary—Scott Todd, M. D., of Atlanta, Ga.

Committee of Arrangements—J. P. Logan, Chairman; H. V. M. Miller, G. G. Crawford, H. L. Wilson, J. F. Alexander, J. M. Johnson, Charles Pinckney, V. H. Taliaferro, J. T. Johnson, of Atlanta, Ga.

Committee on Prize Essays—Robert Battey, of Rome, Ga.; J. G. Westmoreland, of Atlanta, Ga.; Wm. A. Love, of Atlanta, Ga.; Robert Kidley, of Atlanta, Ga.; Henry F. Campbell, of Augusta, Ga.; J. H. Van Deman, of Chattanooga, Tenn.

Committee on Publication—Dr. Wm. B. Atkinson, Chairman; T. M. Drysdale, M. D., A. Fricke, M. D., S. D. Gross, M. D., C. Wistar, M. D.; R. J. Dunglison, M. D., of Pennsylvania, and Wm. Lee, M. D., of District of Columbia.

The committee also report the following nominations for Chairmen and Secretaries of Sections for 1879.

I. Practice of Medicine, Materia Medica and Physiology—Dr. Thomas F. Rochester, of Buffalo, N. Y., Chairman; W. C. Glasgow, of St. Louis, Mo., Secretary.

II. Obstetrics and Diseases of Women and Children—E. S. Lewis, of New Orleans, Chairman; J. R. Chadwick, of Boston, Mass., Secretary.

III. Surgery and Anatomy.—Moses Gunn, M. D., of Illinois, Chairman; Dr. J. R. Weist, of Indiana, Secretary.

IV. Medical Jurisprudence, Chemistry and Psychology.—Dr. Wm. M. Compton, of Mississippi, Chairman; L. M. Eastman, of Maryland, Secretary.



V. State Medicine and Public Hygiene.—Dr. John S. Billings, of District of Columbia, Chairman; Dr. J. T. Reeve of Wisconsin, Secretary.

Next week we shall give an account of the proceedings in the several sections. Many of the papers presented we shall publish in full, beginning in the present number with the able address of Dr. Seguin.

Convention of American Medical Editors.—The 15th annual convention was held at Buffalo on the evening of June 3rd, and after listening to a paper on "Abstract of the law of New York State in regard to the commitment of the insane to asylums, their detention and discharge, compared with the statutory provisions of England," by Dr. John P. Gray, adjourned; having elected the following officers:—President, Dr. William Brodie, Detroit; Vice-President, Dr. J. A. Miner, Buffalo; Secretary, F. H. Davis, Chicago.

Association of American Medical Colleges.—This association met at the Buffalo Medical College on June 3rd, the President Dr. J. B. Biddle, in the chair. After receiving the credentials of members, the matter of admitting the Howard University, D. C., to the association was taken up. Objections to doing so were raised, and after some discussion, sustained; and the college refused admission by a vote of 12 to 2.

The Secretary presented a report, from which it is learned that there are twenty-five regular members and one affiliated member. Applications for membership had been received from the Ohio Medical College March 26th, and the Alabama Medical College March 18th last. As soon as the report was issued last Fall a letter was sent to all regular Medical Colleges of the United States, asking if they conformed to the articles of confederation required of regular or affiliated members. Accompanying this letter was sent the pamphlet containing a history of the organization of the Association, its constitution, by-laws, articles of confederation, and list of members. Two Colleges—Harvard and the Medical Department of the University of Pennsylvania—replied that they regarded it unadvisable for them to join the Association.

On motion, Profs. Davis, Flint and Gross were appointed by the Chair a Committee to consider the whole matter in relation to the classification of the Medical Colleges.

Prof. Gross offered a series of preambles and resolutions contemplating a meeting in September of representatives at Washington, for the purpose of raising the uniform standard of medical education.

Prof. Davis seconded the resolutions. He referred to the efforts made to improve college instruction during the past twenty-five years, and thought the sentiment had reached a point which demanded an advancement in medical education. He favored a three years' course of instruction, of not less than eight months duration per year, and no student could enter upon his studies in any college until he had first given some evidence of preparation. He hoped to live to see the medical profession at the head of all science, where it belonged, and the adoption of the resolutions would be an important step in the right direction.

Prof. Gunn, of Rush College, was in favor of a three years' course as to the requisite graduation of students.

The Secretary read a letter from Prof. Seely, of the Ohio Medical College, in which he spoke in favor of a full course. The Secretary also stated that he was of the opinion from the correspondence he had that a majority of the colleges were in favor of a full course.

Prof. Bodine, spoke in favor of the three years course, but thought the time was not suitable. He offered an amendment to the effect that the conference be held under the auspices of the Association, which was lost. The Friday preceding the meeting of the American Medical Association next year was fixed as the day for holding of the Conference, and the preambles and resolutions were adopted.

Prof. Flint offered a preamble and resolution to the effect that the tickets and diplomas of the Nashville Medical College shall not be recognized by the Association so long as the institution gives two graduating courses a year, and accepts three years' practice in lieu of a course of lectures.

Prof. Scott, of Wooster, made some explanatory remarks in relation to the conferring of the honorary degree in the case of a person twenty-eight years of age, and it was decided by a vote of the Association to let the matter drop.

#### ELECTION OF OFFICERS.

The following named officers were elected for the ensuing year :

President—Prof. J. S. Biddle.

Vice-President—Prof. N. S. Davis.

Secretary and Treasurer—Prof. L. Connor.

**Laryngological Association.**—A large number of throat specialists met at the Tift House, Buffalo, on June 3rd, for the purpose of forming a national association to have annual meetings in various parts of the country. Dr. F. H. Davis, of Chicago, acted as chairman, and Dr. Geo. M. Lefferts of New York as Secretary. After the purpose of the meeting had been stated by these gentlemen a permanent organization was formed and a constitution and by-laws were framed. Drs. Rumbold of St. Louis, Hartman of Baltimore, and Elsberg of New York, were appointed a committee to nominate officers for the following year, and the meeting adjourned until 2.30 o'clock. In the afternoon the following officers were elected:

President—Dr. Louis Elsberg, New York.

Vice-President—Dr. F. H. Davis, Chicago.

Secretary and Treasurer—Dr. Geo. M. Lefferts, New York.

Council—Dr. Clinton Wagner, New York; William C. Glasgow, St. Louis; E. L. Shurley, Detroit; J. H. Hartman, Baltimore.

The name fixed upon was the National Laryngological Association. The first annual meeting will be held in New York the second Tuesday in June, 1879.

**Personals.**—Dr. Harrison Allen, of Philadelphia, has been elected to the chair of Institutes of Medicine, in the University of Pennsylvania, succeeding the late Prof. Francis Gurney Smith.



—Dr. Wm. F. Lockwood, Jr., has been appointed Associate Demonstrator of Anatomy, at the College of Physicians and Surgeons, Baltimore.

**A Visit to the Women's Hospital.**—On the kind invitation of Dr. Bozeman, Attending Surgeon to the "Women's Hospital," we last week had the pleasure of visiting that institution and witnessing his peculiar methods of treatment. The doctor first showed a case of vesico-vaginal fistula in which the whole upper surface of the partition was absent, with numerous bands of hard cicatricial tissue that kept the edges widely asunder, in fact a most aggravated case, and one which, without the aid of his speculum and table, would be considered incurable. Before final operation three or four weeks of preparatory treatment were found necessary. This treatment consisted in cutting across the bands of cicatricial material and then inserting a vaginal plug. By this means the tissue is rendered less rigid, and after a time the two edges can be drawn together so as to meet accurately without very much force of traction. As soon as this can be done, the case is ready for operation. In this instance the doctor fully demonstrated the value of his instrument and it is very difficult to understand why it is not more generally adopted by the profession. It possesses all the advantages of Sun's speculum, has none of the disadvantages that pertain to that instrument, and may be used with the patient placed in any conceivable position. One very valuable feature of the instrument is that it is self-retaining, and the physician using it every day in his office requires no constant assistant. It also serves as an excellent rectal speculum, indeed there is no better, as was demonstrated in the case next shown by the doctor, in which he ligated four internal hemorrhoids with its aid.

The remainder of the afternoon was occupied in the treatment of cases of flexures and displacements, which Dr. Bozeman considers in most cases to be due to want of proper vaginal support. His method of treating these diseases, consists in first making the uterus freely movable by carefully introduced vaginal tampons, so placed so as to force the uterus into its correct position, and then the insertion of his vaginal supporter, an instrument ingeniously constructed to answer all the purposes of the multitude of pessaries now in use, but entirely devoid of all their deficiencies. The same instrument answers all the indications, either of backward or forward displacement, and may be used indifferently with equal efficiency in either. It cannot cause ulceration in any part of the vagina, is easily adaptable and can be introduced and withdrawn by the patient herself. The doctor claims more success in treatment by its means than with any instrument yet devised, and we have no doubt but that its introduction into general use will mark a new era in gynecological practice.



# THE HOSPITAL GAZETTE

AND

## ARCHIVES OF CLINICAL SURGERY.

A WEEKLY JOURNAL OF MEDICINE, SURGERY AND THE COLLATERAL SCIENCES.

EDITED BY

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H. H. KANE, M.D., Associate Editor.

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WHOLE NO. 38.

[The editors hold themselves in no way responsible for the views expressed by contributors.]

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### EDITORIAL.

#### DRAM SHOPS.

No one will deny that the question of liquor selling is a proper theme for discussion in a medical journal. We do not propose, however, at this moment to discuss the matter in either a medical or scientific point of view, but only to call attention to its relations to medicine, to hygiene, and to the interest of our craft, generally, and to invite the profession to its wider discussion. The recent efforts of the Rev. Dr. Crosby, and of the "Society for the Prevention of Crime," of which he is the President, to close the 10 or 12,000 liquor saloons of this city, and thus deprive a million of people of the free and unrestrained use of stimulating drinks, has suggested the following brief remarks:

If Dr. Crosby and the society which he represents, aided by the "Apostle" Mundy, succeed, the chief source of crime and pauperism in this city will be cut off; the springs will be dried up, and the great streams which now flow toward the hospitals, the morgue, the alms houses and the penitentiaries will cease, or become mere rivulets; our enormous taxes will be greatly reduced, rents will fall, capital will seek investment and labor will be in demand.

But these are matters for the statesmen to consider, rather than for us; or at least we may say, our interest in these matters is only incidental as citizens.

It is our special duty, however, to consider the vast amount of sickness which is directly and indirectly traceable to this cause. From every liquor saloon in this city there comes daily a procession of men, women and boys, who have unsuspectingly been poisoned by the seductive dram, marching with halting and irregular steps, their garments torn and soiled, their eyes bleared, their noses red, their intellect stupified, dyspeptic, neuralgic, rheumatic; trembling, wheezing, coughing; suffering from hepatic diseases, renal diseases, chronic ulcers on the legs, vomiting and breathing out foul odors. A part of this procession finds its way with difficulty to those places these lepers call their "homes",—to their wives and children; but a greater part find their way more easily to the station houses, the prisons, the hospitals and the morgue.

These people have taken for months and years a subtle poison, and their infirmities are due solely to this cause. In whatever form administered, it is still the same poison which has produced these varied results. It is alcohol. Tobacco may have had its share in supplying the rank and file of this procession, but alcohol is the most active recruiting officer and drill-master.

Our profession and medical science generally, has another interest in this matter, and one of which we hesitate to speak, because in this case our interest is greatly in the continuance of the free sale of liquors. If Dr. Crosby succeeds,—as it now seems that he will, since Recorder Hackett has put his shoulder to the wheel, if he shuts up the dram shops, there will be a sad diminution of the supply of accidents and of diseases in the hospitals for clinical instruction, and of "material" for dissection. Indeed we do not believe there would be one hospital patient in the free hospitals where there are now ten, or that there would be one subject for dissection, "unclaimed" where there are now twenty; we are not certain that there would be any. What in that event would our 5 or 6 medical colleges do? This is a serious question, and it might be well for the colleges and our profession to find an answer before the shops are shut up and the evil consummated,

Dr. Crosby, Recorder Hackett and the Apostle Mundy, will be held responsible if these results come of their labors and their enforcement of laws. They will be regarded as men who obstruct the progress of science. No more unclaimed dead bodies, and no more "cases of interest" for the medical students who gather annually in this great metropolis, where crime and disease have hitherto been fed and

nourished, and, when fully matured, have been shut up and exhibited for the instruction and entertainment of men of science

Our readers will pardon us for having fallen into a line of reflection so unpleasant; but that the sources of supply will fail to our colleges if the dram shops are closed, is as certain as that the sun will rise to-morrow, and we are not likely to remain in doubt as to who did this thing.

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## LECTURES.

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### CHOREA ASSOCIATED WITH HERPES ZOSTER.

A Clinical Lecture delivered at the Jefferson Medical College Hospital, Philadelphia.

BY

JOHN B. ROBERTS, M.D.

Physician to the Hospital.

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[Reported for THE HOSPITAL GAZETTE.]

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This morning I have to show you a case which is interesting on account of there being an association between two very dissimilar diseases, and which yet have a common factor since they are both considered to be neuroses. This little girl, aged 6 years, has, as can be seen by the movements of her hands and arms, the disease denominated chorea. The interest of the case, however, centers in the history of the antecedents of the present ailment, which can best be studied by interrogating the parents. The account obtained may be condensed as follows: The child about one year ago had measles and has been rather delicate ever since, but has never had rheumatism. The parents have never suffered from rheumatism they say, though both mother and father are subject to vague pains which their physician denominates neuralgia. Three weeks or so ago there appeared an eruption on the right chest of the girl which was characterized by vesicles extending in groups around the body.

It was situated over the scapular and the pectoral regions. This the attending physician told them was shingles, and he was certainly correct, for we can see now the dried vesicles and the superficial cicatrices still existing in the localities mentioned. One week after, symptoms of irregular muscular twitching of the hands were observed, and this condition is the one for which the child was brought to us for treatment—examination shows slight choreic movements of the hands and arms, the child has a clean tongue, has regular bowels, and presents the marks of recent herpes in the situation referred to. The skin, however, is hot, and as fever is not a symptom of chorea it becomes necessary to examine the internal organs to determine the cause of the elevation of temperature. This might be the result of the constitutional irritation of the inflammatory eruption, if the cutaneous affection were now in its active stage, but there remains only dried crusts, and the acute symptoms have disappeared. Hence the lungs



and heart are examined, but without any lesion being found. You must in this connection remember that it is not unusual to find endocardial murmurs in cases of chorea, produced by roughening of valves or perhaps by an irregular choreic contraction of the papillary muscles of the heart interfering with perfect valve action. Here the heart is acting rapidly, but no murmur is detected, though the determination of this point is difficult because of the impossibility of keeping the child perfectly at rest. In this, as indeed in all cases, the clinical history is incomplete until we have examined the urine, which shall be done at an early date. You have now an account of the development of this case of chorea, in which there appeared herpes zoster of the pectoral and scapular regions about one week before chorea was observed.

In connection with this patient I shall mention a similar case which, curiously enough, I was shown by my friend Dr. T. D. Ingram, only the day before this little girl was brought to the hospital, and which greatly excited my interest. A boy of 11 years was observed to be slightly choreic last September, but his mother paid no attention to the matter because the symptoms were insignificant. In November, he was seized with articular rheumatism of moderate severity, characterized by pain and swelling in the knees, ankles and perhaps other joints. His brother has also suffered from rheumatic fever, hence there is probably a family predisposition. No medical attendance was obtained for the rheumatic trouble, but some three weeks subsequently Dr. Ingram saw him and found a harsh systolic apex murmur over the heart. A week later choreic movements of a mild character were noticed in the right hand and muscles of the face. These increased until soon there was such marked chorea affecting the face and extremities that the patient was unable to sit in a chair, but kicked and threw his arms about with great violence and made continual grimaces. The right arm and leg became partially paralyzed so that he dragged his foot when he attempted to walk and had a very feeble grasp. At night he was very restless, but when he fell asleep the irregular movements ceased. He was treated with alkalis, digitalis, bromide of iron, arsenic and antispasmodics according to indications. When he began to lose flesh rapidly, and showed signs of exhaustion the doctor prescribed stimulus and cod-liver oil. The greatest relief, however, as to the chorea seemed to be obtained by hypodermics of a  $\frac{1}{50}$  of a grain of atropia, which were administered twice at an interval of four days. He had been taking also belladonna internally and Fowler's solution without much apparent benefit. On the third day after the first subcutaneous injection, which was given by the right arm, he complained of burning pain and says there were red places on his right arm. This was about nine weeks from the time Dr. Ingram had first seen the choreic movements in the right hand and face. The motor palsy was practically well at the time the eruption appeared, and the chorea had improved. When I saw the patient there were a large number of flat vesicles collected in groups over the great pectoral muscle of the right side, beginning near the middle of the sternum: similar groups were scattered down the inside of the arm nearly to the elbow, and again over the scapula below its spine. These vesicles contained a yellowish

and opaque fluid, which was evidently purulent, but there seemed to be no tendency to pointing or spontaneous rupture. In addition, the lower part of the arm and upper part of the forearm presented diffused redness in large irregular patches which had distinctly defined margins as though there was some infiltration under the skin. At one point I noticed a small isolated spot which presented the appearance of urticaria. It was difficult to determine in this case the cause of the eruption. That the vesicular eruption was herpes zoster there is not the least doubt, but whether the other portion of the eruption was produced by the atropia or arsenic it is difficult to say. Belladonna does produce a cutaneous affection at times, but it is rare to find a vesicular eruption resulting from belladonna, though it is stated that this does occur. It is hard to believe, moreover, that an herpetic eruption from this cause would follow the track of the intercostal and internal cutaneous nerves of the arm. I must mention in addition, that this poor little patient has also disease of the kidney, as shown by the presence of albuminuria and casts.

In the child before you then, gentlemen, and in the case related we have two interesting affections combined. In the first, herpes zoster of the right side preceded the chorea by one week; in the other, there existed chorea for many weeks before the eruption was developed. While giving you the history of these cases I have incidentally mentioned the characteristics of chorea; but it may be well to review a little more logically. The movements which you see are almost pathognomonic and consist of involuntary convulsive twitchings, often more marked when the patient makes any effort to grasp an object or to walk. They usually subside during sleep. The disease usually, though not necessarily, occurs in childhood, and eventuates in most instances in a cure. It must be recollected, however, that death may occur from exhaustion when the disease is acute and the movements incessant. I had charge of such a patient once whom I was obliged to tie in bed on account of the violence of the convulsive motions which threw him out upon the floor. Death occurred in this case suddenly. In regard to the pathology of the disease we are much in the dark. There is often an evident rheumatic history of the patient or his family and frequently, as indeed happened in the fatal case mentioned, valvular lesions are found. Some writers believe chorea to be due to embolisms in the vicinity of the corpus striatum, and rheumatic endocarditis may be the cause of the embolic plugging. The boy mentioned is interesting in this connection. He had a distinct attack of articular rheumatism and has mitral regurgitation and chorea; though the chorea was noticed for the first time, it will be remembered, before the rheumatism. This perhaps may point to the fact that the two diseases depend on a similar abnormal condition of the blood and he may have had the valve trouble long before. Partial hemiplegia, as in this same case, is not an uncommon attendant of chorea.

So much for this little girl's chorea, which is, fortunately, not at all severe. I must next tell you something of the nature of shingles or herpes zoster. This is a vesicular eruption which for some reason occurs along the course of cutaneous nerves. In this case it is in the inter-



costal region, but I have seen it on the buttock, and on the forehead. In fact, I remember well a case where the distribution of the supra-orbital nerve was well outlined by the vesicles, which extended just to the middle line. There is generally burning or neuralgic pain before the eruption appears; this may be very slight and may or may not subside with the exhibition of the vesicles. The cause of the disease lies in the condition of the nerves or nerve centers which have in some instances been found to have undergone pathological alterations. Is there any connection between the chorea in these two cases and the herpes zoster? That is a difficult point to decide, since we know so little of the pathology of these two neuroses and I do not know that any cases like these have been reported. Some authorities believe that the lesion of chorea is situated in the spinal ganglia, and some of the well known dermatologists, on the other hand, hold that there is a pathological alteration in the spinal ganglia connected with the nervous trunks with which zoster is connected. If there be any truth in these opinions it is not hard to conceive that a condition of a ganglion giving rise to chorea might set up a change in a neighboring centre that would produce herpes zoster; and so, on the contrary, zoster might be the cause of the development of chorea. This would seem to be even more probable if the two diseases occurred or were most marked on the same side of the body.

What then in regard to treatment of our little patient? For the herpes nothing shall be prescribed, because it is three weeks since it first appeared and the vesicles have dried up and no inflammatory symptoms remain. These scabs will soon be rubbed off and nothing but the superficial scars will be seen. Many drugs have been used in the treatment of chorea, of which the most valuable are arsenic, cimicifuga, bromide of iron, and belladonna. In addition to these you must use chloral and bromide of potassium freely, to give rest to the child if the chorea is violent and thus lessen the danger of death from exhaustion. Here the symptoms are mild, and the child has been in rather bad health, hence I shall continue the cod-liver oil prescribed by the assistants when she first came to the hospital, and give in addition two drops of the solution of arsenite of potassium after meals. Remember, however, that we shall make further examinations of the lungs and of the kidneys, that nothing may escape us.

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## ORIGINAL ARTICLES.

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### JABORANDI AND ITS ACTIVE PRINCIPLE PILOCARPINE.

PAUL H. KRETSCHMAR, M. D., of BROOKLYN, N. Y.

Jaborandi has been used in this country and in Europe during the last four years to a considerable extent for its diaphoretic and sialogogue effects. But, remarkable enough, while the preparations used have given entire satisfaction in the hands of many, severe complaints about the uncertainty of their action can be heard from others.



Can the difference in the action of— in my opinion—so valuable a drug be satisfactorily explained?

In Brazil where jaborandi has been used as a diaphoretic and—according to trustworthy reports—as a diuretic long before we knew anything about it, the leaves of the following plants are known as “Jaborandi :”—*piper jaborandi* (Willdenon) *Serronia jaborandi* (Guil-  
lenica) *Monniera trifolia* (Aublet) and *Pilocarpus pinnatus*.

Who would expect to find that these different plants, which not even belong all to the same species, possess exactly the same properties?

I have used the *leaves of Pilocarpus pinnatus*, the *fluid extract* made of them and last, but not least, the active principle *Pilocarpine* in its combination with hydrochloric acid, known as hydrochlorate or *muriate of pilocarpine*. I have found the action of jaborandi and its preparations in a great majority of cases, *reliable, quick and decided*, and I do not hesitate to say that I consider jaborandi—derived from *pilocarpus pinnatus*—*as the most powerful diaphoretic and sialogogue* known at the present time. That unpleasant disturbances, such as vomiting, headache, dizziness, fainting, colic, etc., are occasionally found to be produced by it, *might* be expected from such an active remedy, but, aside from slight gastric disturbances, *I have never found any unpleasant symptoms to occur.*

If I employ *the leaves*, I do it in the form of an infusion, which is prepared in the following way. Half an ounce of the leaves is coarsely powdered, and ten or twelve ounces of boiling water is poured over it. The infusion is kept at a temperature somewhat below the boiling point for about 15 minutes and strained. Of this I administer a small teacupful warm every two hours, and in the majority of cases I obtained good diaphoresis about 10 minutes after the administration of the first dose. Of the different preparations of jaborandi which I have employed I obtained, generally speaking, the least satisfaction with the infusion. Nausea, vomiting, and sometimes headache accompanied or followed in some cases the diaphoresis produced by the administration of the infusion of jaborandi.

The *fluid extract* which has probably been most frequently employed, has given entire satisfaction in all cases of adults. I employ the following simple formula:

R

Ext. jaborandi fl (pilocarpus pinnatus

Syr. simplic, aa ȳ ss.

M.S. Teaspoonful at 2, 4, 6, and 8 P.M., and at 8 and 10 A.M., 12, and 2 P.M. the next day.

The patient is to be kept in bed, well covered, and from 8 to 10 minutes after the administration of the first dose, its diaphoretic action takes place. After the second, and third dose, the diaphoresis is at its height. The flow of saliva commences according to my observations always *after* the diaphoretic action has begun, although it has been stated by others that the sialogogue influence of the drug becomes apparent *before* its diaphoretic action can be observed.

I advise the patient to be careful not to swallow the saliva, but to

*let it run from the mouth*, and found with this little precaution that vomiting does not generally occur, if at all, it takes place with the 4th, and 6th or 7th dose. Other disturbances I have not observed.

*Hydrochlorate of Pilocarpine*, derived from the alkaloid found by E. Hardy in the leaves and in the root of *pilocarpus pinnatus*, is in many respects the most valuable of the preparations of *jaborandi*. It comes in small white crystals, very soluble in water and is for different reasons especially adapted for *hypodermic* medication. Its action resembles that of the drug itself, but it is *more uniform* and reliable than either the infusion or the fluid extract. It also influences the bronchial secretions by making them more fluid, and it has been used with advantage in croup, bronchitis, etc. A solution is made by dissolving  $\frac{1}{2}$  grain of hydrochlorate of pilocarpine in 30 minims of pure water. I use in cases of children from 6 to 10 years of age, 10 mins. of this solution, 1-6 gr. hypodermically and repeat the injection once or twice the next or following day. To adults I have given 20 mins. ( $\frac{1}{3}$  gr.) repeated every day for three days.

The simplicity and almost painless manner of its administration, the fact that its hypodermic use does not cause any irritation, or abscess at the point of injection, the easy manner by which we are able to administer it in a state of uremia, unconsciousness, during convulsions, etc., make it a most valuable remedy in the treatment of children. I used it in five cases of parenchymatus nephritis following scarlet fever, four of which occurred in children under 12 years of age and I can only state that its action was very satisfactorily, although it produced considerable vomiting in one and moderate emesis in another case.

*Jaborandi* deserves further trial and will be found of good service, when properly used, in cases of parenchymatus nephritis, general anasarca, pleurisy, bronchitis, etc. Prof. Marmé, Gottingen, states: atropine, in small doses, arrests all action of *jaborandi*, while large doses of pilocarpine *cannot* overcome active doses of atropine.

## HOSPITAL RECORDS.

### PRESBYTERIAN HOSPITAL, NEW YORK.

REPORTED BY A. LEITCH LACAY, M.D., HOUSE SURGEON.

STRICTURE URETHRAE—FISTULA—EXTERNAL URETHROTOMY—CLIFF SERVICE OF DR. DANIEL M. STIMSON.

Bradford Brown—Widower—Aet. 50, Connecticut—Boatman—Admitted April 9th '74.

*Previous History*.—About thirty years ago, had gonorrhœa. About two years after that he noticed that the stream of urine began to diminish in volume and force. On urinating he had pain in the glans penis and at a point about four inches posterior to the meatus. Some six years ago he says that he had erysipelas of the scrotum into which an incision was made leaving a fistulous opening through

which urine passed occasionally. Before this occurred he was treated by a physician in his village who, every few days passed a No. 8 English bougie, but slightly flexible, into the urethra. The bladder was seldom, if ever entered, though at each sitting considerable blood was lost. The patient states that fainting during these rough probings was a common occurrence, the pain being so severe, and that any one could have tracked him home from the doctor's office by the blood that dripped from the penis. On one occasion he had to stop on the way home and apply a handful of snow in order to check the hæmorrhage. The physician, he says, used to encourage him by stating at every few sittings, that though the bladder had not been reached, he had succeeded in forcing the instrument in another inch.

At one time, no water passed from the fistula for six months. About four years ago external urethrotomy was performed. No instrument was passed after the operation. Occasionally urine has forced its way through the imperfectly united edges of the incision. For the past two years he has been troubled with frequent micturition, accompanied by scalding pain in the urethra. The urine did not all pass away during micturition, there being some dribbling for a little time afterwards. Never had incontinence of urine or retention. This winter in December or January a fistulous opening appeared in the left side of the scrotum, but closed in a week's time.

*Present Condition.*—The patient, though having a good appetite and good digestive power, is in a bad general condition, being pale, anæmic and sallow. Bowels regular. Frequent micturition with some scalding pain during the act. The urine is highly albuminous and contains granular and hyaline casts. A fistulous opening is found a little to the right of the median raphe, while an indurated mass fills the perineum and involves the whole of the posterior part of the scrotum.

*April 10th.*—Dr. D. M. Stimson examined the patient and found a constricted meatus and a stricture about four inches behind it. No instrument could be passed into the bladder. After the examination the patient was ordered

R

Potass. bromid.,	gr. xx
Tr. hyoscyami,	m. xv

every two hours, at night, until sleep was induced; as also to rest quietly in bed and drink flax-seed tea.

*April 11th.*—The patient passed a quiet night. Neither chill nor soreness followed the examination. Ord. diluent drinks. Has some eczema of the thighs from irritation by the urine. Ordered the parts dusted with bismuth. sub. carb., and suspension of the scrotum.

*April 14th.*—An abscess made its appearance at the lower part of the scrotum near the raphe.

*April 15th.*—Abscess opened, evacuated and poultices applied.

*April 21st.*—Dr. Stimson succeeded in entering the bladder with a filiform bougie. After its withdrawal the patient succeeded in passing a fair sized stream of water.

*Operation.*—The patient being etherized, Dr. D. M. Stimson pro-



ceeded to do an external urethrotomy. It was first attempted to pass a small silver staff about the size of a director into the bladder. This being impossible, a filiform bougie was, after much difficulty, introduced into the bladder; the silver staff being then passed to the scrotal portion of the urethra.

An incision three inches in length was made in the median line of the perineum, and the indurated and cicatricial tissues gradually opened from  $\frac{1}{2}$  to  $\frac{3}{4}$  of an inch. As the bougie could not be found it was necessary to extend the incision upwards so as to reach the metallic instrument. The urethra being laid open at this point, two loops of thread were passed through the urethral edges which could thus be separated, while the tissues on either side of the filiform bougie were dissected with a fine probe-pointed canaliculus bistoury, and the canal opened for from two to two and a half inches. The meatus was then divided to its fullest extent with Civiale's urethrotome. Otis's dilating urethrotome was then used, and the whole canal cut so as to admit an Otis's No. 40 F. bulbous sound. The patient made a good recovery from the ether.

*April 22d.*—Had a chill this A. M. Urine has a *smoky* tint due to thorough admixture of blood. Blood casts found in the urine. Feels sick at his stomach. The urine comes freely from the perineal wound. Ord. Sp't's Vini, Gallici,  $\mathfrak{z}$  j q.  $\frac{1}{2}$  hor. As this nauseated him and caused vomiting, he was put on milk and lime-water, and beef tea.

*April 23d and 25th.*—In the morning of each of these days the patient had a chill. All the urine passes from the perineal wound. It is scanty, albuminous and contains casts. Anorexia.

*April 26th.*—Passed a No. 38 French gum elastic catheter down to the perineal wound.

*April 27th.*—Was nauseated and vomited nearly all night. Also had chilly sensations. This A. M. he retains neither food nor medicines. Applied Cantharides blister to stomach, but without relieving symptoms. Tried nitric acid with as little success, and the fly blister was again tried, this time giving relief. The abraded surface was sprinkled with gr's. v of quiniæ sulphat.

*April 28th.*—Skin dry and cool. Tongue and whole mouth so dry as to render speech difficult. Bowels confined. Has passed no urine for twenty hours. Pulse thready and frequent. Temp. below 97° F. Vomiting continues unabated.

Ord.

Calomel,	grs. xx
Ol. Tiglli,	gtt. $\frac{1}{2}$

*April 29th.*—Bowels moved freely, the patient passing the characteristic black faces of calomel, and the urine which is about normal in amount, passes freely from the perineal wound, without pain. Tongue moist. Skin natural. Has ceased vomiting.

*May 1st.*—Stomach quite easy. Urine still passes through cut. A No. 18 English ~~steel~~ sound passed easily into the urethra as far as the membranous portion where it met with an obstruction. Leaving the instrument in the urethra, a No. 23 French flexible bougie was

passed through the cut into the bladder. Upon withdrawing the bougie, the sound, guided by the finger in the wound, glided easily into the bladder.

Ord.

Chloral hydrat, 3 j, at night.

*May 2d.*—No chill last night, but had one this morning. Gums sore from the mercury. Urine all passed through cut. Two blisters were applied to abdomen and an attempt made to give quinine endermically, but with little success.

*May 3d.*—But a very small quantity of urine being passed, and that highly albuminous and loaded with casts. Patient very weak. Nausea intense; vomiting almost incessant. There is tenderness and slight glandular swelling in the left inguinal region. Left side of hypogastrium tender. Iced champagne administered but is immediately vomited. A large poultice applied to hypogastrium. Only food taken is beef tea and milk in teaspoonful doses at short intervals.

Ord.

Hydrarg, sub-mur., ʒj dry on the tongue.

*May 4th.*—Urine again abundant. *Sp. gr.* 1.010. *Reac.* alkaline. *Albumen*  $\frac{1}{4}$  of bulk. Nausea continued throughout the night with constant retching, both being present this morning.

Ord. Acid hydrocyanic, dil Mij, to be repeated every two hours if necessary. Mustard plaster to back of neck and three cups to kidneys. Less tenderness over hypogastrium. Scrotum inflamed.

Ord. Hydrarg. Sub. mur. grs. v, dry on tongue. Milk and lime water given in ʒ ij, doses when desired. Much less nausea and retching to-day.

*May 6th.*—Complains of burning pain in stomach. Bowels moved twice up to 10 A. M. All the urine passes through cut. Ord.

Calomel, grs. v.

Quiniæ sulph. grs. ij.

*May 7th.*—Very little nausea and retching. Bowels moved freely, giving the characteristic stools of calomel. Gums very sore. Exhausted look has gone from face, and he appears much brighter. All urine still passes from the cut. Ord. Sol. potass. chlorat. ad saturam to wash mouth every hour.

*May 9th.*—Patient feeling bright and well. Gums still sore. Appetite excellent. No nausea. Bowels regular. Urine passes in about equal quantities from cut and urethra. Poultice to abdomen discontinued.

*May 11th.*—Feeling so well that he wants to get up and sit in a chair. Still weak. No nausea. No pain. Appetite good. No instrument has been passed since the 1st ins't. until to-day, when a No. 10 English steel sound was introduced. Its point tended to emerge at the wound, but with guidance it passed easily into the bladder. Nos. 12, 14, 16, and 18, (E) steel sounds were then occasionally introduced and caused some little pain.

*May 14th.*—The urine all passes through the urethra, and gives no pain. Mouth still sore from mercury. Small abscess on right side of scrotum where he has been scratching it. Appetite good. Stronger

and in excellent spirits. Urine less albuminous and free from granular casts. Ord

Intus. chamomile, ℥ i. ℥ i. d.  
 Acid sulph. aromat, Mv. }

*May 15th.*—Gums not so sore. Abscess in scrotum "broke" while patient was in privy, and discharged considerable pus. Feeling very well.

*May 17th.*—No. 18, Eng. steel sound passed into bladder easily and without pain. Pt. put on ward diet. Soreness of gums almost gone. About two thirds of the urine passes through the penis.

*May 22nd.*—All urine passes through the penis. Doing very well. About the ward all day.

*May 27th.*—All urine per urethram. Allowed to go out on pass to-day. Doing well.

*May 29th.*—Urine all passes through penis. No. 18, E. sound passes into bladder without obstruction. Wound has closed entirely. Discharged cured.

## NEWS ITEMS AND NOTES.

American Medical Association—Section of Practical Medicine, Materia Medica and Physiology, was called to order shortly after 3 o'clock by the Chairman, Dr. A. L. Loomis of New York. In the absence of the Secretary, Dr. J. Shoemaker, of Pennsylvania, was appointed Secretary *pro tem*. The first paper, read by Dr. Shoemaker, was a synopsis of his experience in the cause and cure of ringworm and its prevalence in public schools. Some interesting experiments with animals and children were related to show how the disease was exchangeable between them. The paper was discussed by Drs. Rich, Avery of Hartford, and Cutter of Coldwater, Mich., after which it was referred to the Committee on Publication.

In the absence of Dr. Beard the reading of his paper was postponed, and Dr. N. S. Davis of Chicago, read a paper upon the causes of pulmonary tuberculosis. He held that climatic influence was overrated, and that the real causes were a want of exercise, ill dressing and dampness. The paper was discussed by Drs. Dennison of Colorado, West, Caldwell of Baltimore, Scott of Cleveland, Brunsell, of Massachusetts and Lester of Missouri. It was likewise referred to the Committee on Publication.

Dr. C. W. Glasgow, of St. Louis, presented an interesting specimen of fibrinous bronchitis.

Dr. Loomis spoke upon the subject of this disease, holding that the only cure was pure air. The Section moved to refer the subject back to Dr. Glasgow, that he might watch the further developments of the case and report at the next annual convention. The Section then adjourned.



## SECOND DAY.

The first paper read was one on yesterday's programme by Dr. George M. Beard, of New York, entitled: "Practical Points in the electrical treatment of Impotence and Spermatorrhea."

Dr. Beard's paper was discussed at some length by Dr. Caldwell, of Indiana, Rich of Philadelphia, Hibbard of Indiana, Palmer of Mich., Branson of Massachusetts, Shoemaker of Philadelphia, Woodbury of Philadelphia. It was referred to a sub-committee, consisting of Drs. Palmer, Hibbard and Branson.

Dr. J. J. Caldwell, of Baltimore, then proceeded to read a paper on "The Neuroses of the Pneumogastric and Sympathetic."

A paper on "The Metric System in Medicine," by Dr. Edward Wigglesworth, of Massachusetts, was read. The system, he stated, has been recommended for use throughout the United States by the State Medical Societies of both New York and Pennsylvania.

## THIRD DAY.

Dr. Buckley not being present to read his paper upon the use of the solid rubber bandage in the treatment of eczema, that subject was discussed at some length by Dr. Martin of Boston.

Dr. Rochester presented a valuable pathological specimen in connection with his paper, which was discussed by Dr. Palmer of Chicago, Dr. Loomis of New York and Dr. Martin of Boston. The paper was referred to the Committee on Publication.

Dr. C. N. Palmer's paper on the use of ergot in the cure of goitre, was a warm defense of the properties of that medicine. Drs. Rochester, Blackwood, O'Hara, Hibbard and Hester, took part in discussing this paper, which was referred.

Dr. Davis of Chicago then started a long discussion on the address of Dr. Loomis before the General Session. The subject of the sanitarium was discussed from various standpoints, including the extremes of favorable and unfavorable opinions. It was carried on by Drs. Dennison, Rochester, Bronson, Davis, Bell and Shoemaker. The outcome of the discussion was a resolution that Dr. Dennison of Colorado be requested to study the subject of the climatic treatment of pulmonary phthisis as he found it in Colorado and report at the next annual meeting. The Section then adjourned *sine die*.

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**Section of Obstetrics and Diseases of Women and Children.**—Dr. E. W. Jenks, of Detroit, Mich., in the chair. Dr. Reamy, who had been set down in the programme for the reading of a paper, being absent, the Section voted to give Dr. Theophilus Parvin, of Indiana, all the time necessary for reading the whole of his paper on Ovariectomy. The reading occupied three-fourths of an hour, but was listened to throughout with great interest. The relative value of the operations was then discussed by Drs. Miller of Chicago, Rive of Dayton, O., Dunster of Michigan, Storer of Newport, White of

Buffalo, Sweet of Philadelphia, Lewis of Louisiana, and Jenks of Detroit. On motion of Dr. White, the Committee on Publication were specially requested to publish this paper. The Chairman gave notice that Dr. Reamy's paper would be read in to-day's session, and Dr. Engelman's would be omitted, in consequence of his absence. Dr. Smith of Philadelphia will also say a few words concerning some recent experiments of his. The Section then adjourned.

#### SECOND DAY.

The first paper read was by Dr. T. A. Reamy, of Ohio, on "Hour-glass Contraction of the Uterus," &c.

Dr. Reamy's paper was discussed by Dr. Miller of Chicago, Dr. Dunster of Michigan, Dr. Parvin of Indiana, Dr. Parker of Milesboro, Dr. Bontecue of Troy.

Dr. H. Storer, of Rhode Island, then read a paper on "The Frequently Gynecological Origin of Inherited Forms of Strumous Disease, and the consequent indications of treatment." The paper was referred to a committee.

#### THIRD DAY.

Dr. Levi P. Warren's paper on "Connection of the Hepatic Functions with Uterine Hyperemias, Fluctuations, Congestions and Inflammations," was read by Dr. Storer of Newport. It was a clear exposition of the dangers of treating specific diseases without due regard to general conditions.

Dr. Storer spoke strongly in advocacy of the principles put forth in the paper. The profession, he said, were in great danger of becoming too specific in the treatment of gynecological diseases, and he felt the time had come when a retrograde movement would be a benefit.

Dr. Bartlett, of Wisconsin, also endorsed the views of the paper.

Dr. Marcy spoke of the dangers which specialists were prone to run into in forgetting that there was anything to be watched, outside of their own territory.

The paper was referred to the Committee on Publication.

Dr. John C. Irish's paper on Dr. Burnham's Surgical Treatment of Uterine Fibroids, was read by Dr. Dunster. The subject was briefly discussed by Drs. Storer, Smith and Dunster.

Dr. E. Cutter of Boston, was unable to read his paper on the use of electrolysis for the same disease, on account of the unwillingness of a publisher to whom he had sent an abstract of the paper which the latter was about to print. He spoke simply upon the subject however. It was likewise discussed by Drs. Caldwell, Beard and Mussey.

Dr. George J. Engelman's paper on Battey's Operation for the Extirpation of the Ovaries was read by Dr. Dunster and briefly discussed by Drs. Treuholme and Rosebro.

The section then adjourned, *sine die*.

**Section on Surgery and Anatomy.**—Was called to order by the Chairman, Dr. Henry H. Smith of Philadelphia. The Secretary, Dr. E. T. Early of Little Rock, Arkansas, performed the usual duties of that office. About two hundred physicians were present.

In accordance with the rules, a sub-committee, consisting of Drs. Post of New York, Watson of Jersey City, and Hyde of Cortland, N. Y., was appointed to examine papers read.

The Chairman stated that on account of the abundance of material on hand it would be necessary to adhere strictly to the rule that no paper should be read which would occupy more than twenty minutes. By special arrangement Dr. Howe, of Buffalo, presented a patient and gave a verbal account of a case of plastic surgery upon the eye, accompanied with photographs. Dr. C. C. F. Gay, of Buffalo, read an able paper on the "Excision of the Diaphysis of the Tibia." Dr. S. H. Weeks, of Portland, Maine, one of the surgeons to the Maine General Hospital, read a paper on "Septicæmia following Resection of Bones."

Dr. Waterhouse asked the difference between pyæmia and septicæmia.

Dr. Weeks replied that by pyæmia he understood the reception into the blood of pus or some of its elements. In septicæmia there is decomposing blood. There are other points of difference, as there are miteriotic abscess in pyæmia, but not wholly in septicæmia.

Dr. Keller had found that opium did not produce sleep except in doses dangerously large. Quinine could be given in large doses.

Dr. Woodward referred to the difference between septicæmia and pyæmia, and wished to know if the gentleman's statements were made on his own observation. He had seen blood poisoning without the existence of pus but had never seen pus in the blood, or found anybody who had. Dr. Henry A. Martin of Boston, read a paper on "Tracheotomy without Tubes." In the course of the paper he said he esteemed it the office of the physician not only to restore health but to mitigate pain, and not only when such mitigation may conduce to recovery, but when it may serve to make an easy passage from earth. Many physicians seemed to make it a kind of scruple and religion to stay with the patient after the disease is deplored, whereas, in his judgment, they ought to use their skill to assuage the pain and agonies of death. Dr. John T. Carpenter of Pottsville, Pa., read a paper on the "Identity of Hospital Gangrene with Diphtheria." He enumerated the following similarities between hospital gangrene and diphtheria, from which he claimed their identity :

1. In their causation—By an atmospheric contagion, becoming epidemic under suitable circumstances.
2. In the interchangeableness of their miasm—Either disease is capable of propagating the other.
3. In their pathological features—Exudation, ulcerations, mortifications, hemorrhage, esysipelas and general blood-poisoning.
4. In the double form of each disease—Simple, catarrhal or pulpy and malignant ulceration or phagedenic.
5. In the local infection as being preliminary to the general infection in such disease.



6. In the parallel methods of cure and in the identical remedies used with success in both diseases.

7. In the similar modes of death and particularly the comparative frequency of heart clot in both diseases.

The Chairman read a letter of regret from Dr. D. M. Clay of Shreveport, Pa., and introduced Dr. Wychoff who presented Dr. Clay's paper on "Peri-typhlitic Abscess." On motion of Dr. Sayre of New York, the paper was read by title and referred to the committee.

Dr. Post, read a paper entitled "Plastic Surgery." Dr. E. M. Moore of Rochester, read an able paper on the "Prevention of Septicæmia in Surgery," which elicited considerable discussion.

The Section then adjourned.

#### SECOND DAY.

The attendance was very large. Dr. Moses Gunn, of Chicago, presided, and Dr. E. T. Easley, of Little Rock, Ark., occupied the Secretary's desk. The regular Chairman, Dr. Henry H. Smith, of Philadelphia, gave a continuation of his paper in the general session by a practical demonstration with preparations of certain points in the Pathology of Bones, especially Tubercles.

When Dr. H. H. Smith, of Philadelphia, had finished his practical demonstration in Section Three, which he did shortly before four o'clock, Dr. Julius F. Miner, took the floor and read a paper entitled: "The Extirpation of the Thyroid Gland," illustrating the same with several specimens, which were passed around upon plates. He was asked by Dr. Sayre, of New York, whether the vessels were ligated before or after division, and Dr. Miner replied that most of the blood vessels were ligated immediately after the division. Only one was generally ligated before division. Dr. Sayre then made some remarks upon the subject. He also discussed the subject demonstrated by Dr. Smith.

Dr. Miner was followed by Dr. B. A. Watson, of Jersey City, Surgeon to the Jersey City Charity and St. Francis Hospital, who presented a paper upon "Disease Germs, their Origin, Nature and Relation to Wounds."

On motion of Dr. Post, of New York, all papers read in the section were ordered to be referred to a Special Committee. Dr. Hodgen, of St. Louis, and Dr. Hutchinson, of Brooklyn, were appointed such Committee.

A paper was then read by Dr. Frederick Hyde, of Cortland, N. Y. on "The Process of Repair in Wounds, with and without Antiseptic treatment."

Dr. Robert Burns, of Philadelphia, followed with a treatise on "Conservative Surgery in Compound Fracturés."

Dr. Robert Battey, Rome, Ga., sent a letter regretting his inability to be present, but forwarded the paper which he was announced to read. It was on "The Permeability of the entire Alimentary Canal by Enemata, with some of its Surgical Applications." It was referred to the sub-Committee.

The final paper of the afternoon was read by Dr. Post, of New York, on "The Excision of Phalanges of the Fingers and Toes."

### THIRD DAY.

In the absence of the regular Chairman, the Secretary called the Section to order, and on motion of Dr. Gunn, Dr. Hodgen was called upon to preside.

Dr. Frank H. Hamilton, of New York, read his paper on "Ex-section of the Meta-tarsophalangeal articulation in valgus of the great toe," and the same was accompanied by photographs. Dr. Hamilton particularly urged the value of the warm water treatment of wounds.

On motion the regular order was suspended to allow Dr. Sayre to exhibit to the Section a child that had been treated and cured of Pott's disease by the application of the plaster jacket, after the method peculiar to himself. The child had taken no medicine, and was free from any prominent deformity.

Dr. Gunn offered the following resolution.

*Whereas:* This section having expressed an opinion upon the results of long bones and

*Whereas:* In general convention a member has asked and been accorded the privilege of recording his protesting vote, Therefore,

*Resolved:* That this Section re-affirms its opinion that shortening, in cases of fractures of the long bones, is the rule in practice regardless of any of the means of treatment now in use.

The resolution was earnestly and warmly discussed by Doctors Keller and Sayre in the negative and by Dr. Frank Hamilton in the affirmative. The resolution was finally adopted, the only dissenting voices being Drs. Sayre and Keller, Dr. Sayre requesting that his protest against the opinion it expressed, be placed on record.

Proceeding with the regular order of business, Dr. John H. Packard, of Philadelphia, entertained the Section with an able paper on "Fractures of the wrist-joint," accompanied with specimens and illustrations.

The paper was discussed at some length by Dr. E. M. Moore, of Rochester, after which Dr. Theodore A. McGraw, read a paper on the "Pathology, Diagnosis and Treatment of Cancer" which was referred without discussion.

Dr. Henry O. Harey, of Cambridge, Mass., followed with a paper on "A New use of Carbolized Ligatures as Applied to Hernia."

On motion, papers by Dr. Andrews of Chicago, and Dr. Maddux, were read by title and referred to the appropriate committee.

The regular order of business having been disposed of, Dr. Moore, was afforded an opportunity to further discuss the paper read by Dr. Packard, and he proceeded to condemn the use of splints of all kinds for Colles fracture, claiming that it was dangerous and that adhesive plaster with the sling-bandage were the best appliances.

Dr. Moore was followed by Dr. Frank H. Hamilton, who, in speaking upon the subject under consideration gave an interesting account of his own practical experience. After further remarks by Dr. Hodgen the Section adjourned.

**Section of Medical Jurisprudence, Chemistry and Psychology** had no papers, and did not organize. The Chairman, Dr. Walter Kempster, of Oshkosh, Wis., the Secretary, Dr. E. A. Hildett, of Wheeling, W. Va., and a few others, met and adjourned.

#### SECOND DAY.

In the absence of the regular Secretary his place was filled by Dr. Wm. Compton. The Chairman, Dr. Walter Kempster, of Oshkosh, Wis., read a paper on "General Pareisis of the Insane." It was discussed by Drs. Compton, Clarke, of Toronto, Russell, of Massachusetts, Ducke and Gray, of Utica. The paper was referred to the Sub-Committee in accordance with the rule of the Association.

#### THIRD DAY.

Dr. Theodore Ducke, special pathologist of the asylum for the insane at Utica, read a paper on "Microscopic examinations of the Nervous Centre," which proved of much value and interest to those who listened to it. The doctor exhibited several micro-photographs prepared by himself and Dr. Gray; and also specimen dissections mounted on glass for the microscope.

Dr. Knight of Connecticut, took occasion to speak of the beauty and perfection of the specimens exhibited, and on his motion a vote of thanks was tendered to Drs. Ducke and Gray for the instructive lesson they had given their professional brethren.

The paper was referred to the sub-committee for examination, after which the Section adjourned.

**Section on State Medicine and Public Hygiene** Dr. J. D. Cabell of the University of Virginia presided, and as soon as the Section was called to order, Dr. Henry J. Bowditch of Boston, read an interesting paper upon "Studies of Epidemic of Diphtheria which prevailed at Ferrisburg adjacent to Vergennes Vermont, 1877." The locality and course of the epidemic were traced out with great care and presented circumstantially. He presented the salient points of the epidemic and the paper was an exceedingly interesting one.

At the conclusion of his paper, Dr. Bowditch moved that his paper be referred to a committee of experts. Pending the vote on this motion, the paper was discussed by Dr. Jacobi and Dr. Bell of New York, Dr. Hollister of Chicago, Dr. Noyes of Detroit, Dr. Seguin of New York.

Dr. Toner moved as an amendment to the motion of Dr. Bowditch, that the paper be referred to a committee for publication. Dr. Jones of Toledo, in seconding the motion, took occasion to speak of contagion and infection, their causes, etc.

After further remarks by Dr. Jacobi, and Dr. Knight, and Dr. Isham of Connecticut, the vote was taken on the amendment of Dr. Toner, and it was carried.

Dr. E. Seguin of New York, next read the essay on the "Intervention of Physicians in Education."

Remarks commendatory, of Dr. Seguin's paper, and emphatically endorsing all that he said of the evil complained of were made by Dr.



Bell of New York, Dr. Jones of Toledo, Dr. Frank Hamilton of New York, Dr. Noyes of Detroit, Dr. Storer of Rhode Island.

On motion Dr. Frank Hamilton was requested to present an outline of Dr. Seguin's paper to the general session of the Association, and give his own experience on the same subject.

#### SECOND DAY.

Some discussion occurred on Dr. Bowditch's paper, read yesterday, after which the following interesting papers on the subject of defective drainage, were submitted in the order given, and were referred to a committee, consisting of the Chairman and Secretary of the Section, with power. The first paper is by Dr. Thos. M. Stevens, of Indiana, on "Defective Drainage."

The subject of croup and diphtheria as contagious diseases was discussed by Professor Jacobi, of New York; Dr. Wilcox, of Hartford; Dr. Abbott, of Hamburgh; Dr. R. J. O'Sullivan, of New York; Dr. Reeves, of Wheeling, and others.

Dr. Bell, of New York, then offered the following resolution, which was adopted:

*Resolved*, That Dr. E. Seguin's paper on the "Intervention of Physicians in Education," be recommended for publication in the transactions, and that Drs. F. H. Hamilton, E. Seguin, R. J. O'Sullivan, of New York; Dr. D. B. Lincoln, of Boston; Dr. W. H. Van Bibber, of Baltimore, be appointed a committee to report to the Association at its next meeting upon the practical suggestions of the said paper.

Dr. J. S. Billings, U. S. A., of Washington, exhibited the plans of the John Hopkins Hospital, to be erected at Baltimore, showing improved plans of ventilation and drainage.

#### THIRD DAY.

Dr. J. D. Cabell, of Virginia, in the chair, and Dr. Bell, of New York, as Secretary.

The Chairman began the business of the afternoon by reading a letter from Dr. F. H. Hamilton, of New York, declining the invitation to prepare and present a paper at the next annual meeting of the Association, on the practical suggestions contained in Dr. Seguin's paper on the "Intervention of Physicians in Education," on account of time to devote to the preparation of the paper, and he did not expect to be present at the next annual meeting of the Association.

On motion of Dr. Bell, of New York, Dr. R. J. O'Sullivan, of New York, was appointed Chairman, and Dr. William Clendenin, of Cincinnati, Secretary, of a committee to present the report at the next annual meeting; declined by Dr. Hamilton.

On motion of Dr. Bell, of New York, the paper on State Medicine and Public Hygiene read by the President of the Section, Dr. Cabell, of Virginia, in the General Session, during the morning, was recommended to be printed in the transactions.

A criticism of the paper was then entered into by Dr. Bell, in which he made many excellent suggestions in regard to the sewerage

in various parts of the country and the objectionable condition of most of the privy-vaults in villages and in fact nearly all of them outside of the larger towns and cities.

The President then read a lengthy but interesting paper on "The Bearings of Hygiene on Therapeutics," by Dr. J. R. Black of Newark, Ohio.

On motion of the Secretary, the paper was recommended for publication in the transactions.

Discussion of the paper was then invited, whereupon Dr. O'Sullivan of New York, made some very interesting remarks discussing the subject and treatment of diphtheria as on the day before. He called attention to the fact of the Catholic congregation in New York, one succeeding another until the air became charged with great impurities, actually becoming dangerous, and suggested a few minutes between the services for the æration of the church.

The section having completed its business, adjourned.

**The Plague.**—Advices from Bagdad to May 7th, state that it is rumored there that in Ispaham in Korsandjak, which lies to the south of the Urmia Sea, an epidemic disease, which resembles the plague, has broken out. According to Russian advices from Teheran, the plague has raged in Sondj Bulak Persian Kurdistan for three months, and has already caused 400 deaths. The epidemic of supposed malignant erysipelas in Hamada has turned out to be an epidemic of pustula maligna. The disease attacks principally the leather-workers of the town.

**Wheelbarrows for the Sick.**—The police commissioners of Dundee, Scotland, have supplied each police station with double-sprung wheelbarrows, for the transportation of drunken and incapable persons. The new vehicles are said to be more convenient and easily managed than any other conveyances that has been tried for the same purpose.

**Antiseptic Chambers.**—Mr. W. Thompson F.R.S., of Manchester England, proposes the construction of a room, or series of rooms, for surgical purposes, that shall contain only air that has been so thoroughly filtered through layers of cotton-wool as to be entirely free from germ life. His experiments have satisfied him that such a plan is feasible.

# THE HOSPITAL GAZETTE

AND

## ARCHIVES OF CLINICAL SURGERY.

A WEEKLY JOURNAL OF MEDICINE, SURGERY AND THE COLLATERAL SCIENCES.

EDITED BY

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### LECTURES.

#### CLINICAL LECTURE ON CERTAIN FORMS OF SKIN DISEASE.

Delivered at Jefferson Medical College Hospital.

BY

FRANK F. MAURY, M.D.

Clinical Lecturer on Venereal and Cutaneous Diseases in Jefferson Medical School.  
[Reported for THE HOSPITAL GAZETTE.]

I. MORPHŒA. II. ACNE ROSACEA. III. LUPUS VULGARIS.

*Morphœa*.—This little girl is three years and seven months old. Several months ago the mother tells me that the child hurt its head by falling and striking something. This is the resulting condition—the rare and interesting disease known as morphœa. You see the whitened appearance of all this right side of the scalp. It looks like a thin laid skin of bacon, or perhaps the best description would be to say that it looks as if it were inlaid. The surface is hard and hide-bound. The disease has only attacked the right side of the scalp. The whiteness begins just above the right ala of the nose and ends well down on the right side of the neck. The edges of this space are red and its temperature is a little lower than that of the adjacent parts, but it is not at all elevated. The spot is not without feeling, neither is it over-sensitive.



This, as I have just said, is a disease of great rarity. I have never seen but one case like it before. The pathology and etiology of the condition are alike exceedingly obscure. Microscopic examination of the diseased structure has failed to clear up any of the obscurities which surround the disease. It seems to be very much like the striae atrophicæ which are seen on the abdomen of a pregnant woman. Addison called this disease a form of keloid, but he was entirely mistaken as to its nature.

The prognosis of the local condition is highly unfavorable. The disease goes on indefinitely and usually terminates only with life. It has, however, no known deleterious effects upon the state of the general health. Thus considered it is entirely inert and harmless in every way. It is certainly very disfiguring to the face and scalp—an ugly scar carried with one through life.

Where the disease is acute, it may, like lupus vulgaris, cause more or less contraction and pulling down of the face. In this instance it is very passive. There is simply a shrinkage of the vessels and atrophy of the lymph channels. The subjective symptoms are very few in number.

The treatment is of course very simple, but very rarely productive of much change for the better. I will order two drops of Fowler's solution for the child after each meal. At the same time cod-liver oil should be administered in small, but continued doses. When the weather gets warmer the cod-liver oil had better be stopped.

*Acne Rosacea.*—This man has been under treatment in the outdoor department for some time. I think he is gradually getting a little better. There appears to be nothing specific in this case.

Acne rosacea will attack any sex, or any individual at any time of life. The disease is usually located upon the face and is a cause of great disfigurement. There are three distinct stages of the disease. I. That of hyperæmia. This stage finds an excellent illustration in the condition known as "whiskey nose." The vessels are dilated. II. There is chronic enlargement of the vessels with the formation of papules which rupture with the discharge of pus. The dried pits form the III stage.

The causes of the disease are innumerable. Among them may be mentioned disorders of digestion, or of any part of the alimentary canal. The change of life in young girls at puberty, the presence of uterine diseases, or the use of cosmetics containing lead, zinc, or arsenic. Acne is a very common form of disease, only less so than eczema, which is by far the most common of all skin diseases.

The prognosis of acne is not good—the disease is extremely unlikely to get well fast. Its cure may require months, or even years. To effect a positive cure, the patient's whole method of life must be changed. A voyage to Europe is the best possible treatment when the patient has wealth enough to permit of it. In the majority of cases the condition is the result of a diseased state of the powers of assimilation. This being the case, the benefits to be derived from a foreign voyage can be readily estimated.

As concerns local treatment it is always well to apply some sort of

alterative plaster, the best perhaps is that of mercury, the emplas. hydrarg. The alimentary tract should be kept thoroughly open by saline cathartics. The system needs a methodical course of drainage by salines. Among the best of such are Epsom and Glauber salts, Crab Orchard water, Hunyadi Janos, and German bitter waters.

In this case I shall order two teaspoonfuls of the Crab Orchard salt put in a tumblerful of water at bedtime and taken in the morning while the man is dressing. I think the common custom of swallowing down a tumblerful of the effervescent mineral water, or citrate of magnesia, a very bad one, particularly when the digestion is not good. Some of the contained gas is very likely to be detained in and distend the stomach and intestines. In addition to the mercury plaster as a local application, I shall order the following lotion for the face:

R

Sulphuris sublim., 3 ij.  
Etheris, 3 iij.  
Vini frumenti, q. s.  
Fiat lotio.

Furthermore the man must not drink anything but a little red or white wine, and must be careful to refrain from fish and too much meat.

*Lupus Vulgaris*.—I have four cases illustrating this disease to show you.

*Case I.*—Here the disease assumes the character of an ectropion—a pulling out of the lower lid of the right eye. This, the woman says began as a little wart to which she applied a plaster which she bought at the druggist's. I know nothing about it, but I think it very likely that the plaster contained some arsenic which assisted in forming the scar. These little scabs on the woman's right cheek show the existence of a tendency to epithelial degeneration. This epithelial degeneration is not the true cancrroid. The sebaceous glands are clogged up. The capillary circulation thus interfered with, warty excrescences spring up and so lupus comes on.

*Case II.*—This old woman shows a scar one and a quarter inches long on her cheek. There are also two little scabs on her nose. This condition is very common in old age and also in the case of men who have shaved a great deal. It is very often caused by the application of cosmetics. It is, however, nothing more than a degeneration of the epithelium. Here I would advise the application of caustic potash, nitrate of silver, or sulphate of copper to the skin. In *case I* perhaps it would be well to employ a lotion of corrosive sublimate (gr. j to f.  $\bar{\text{z}}$  j) to the part. I have great faith in caustic potassa. It produces, I think, a radical change in the part.

*Case III.*—The condition of hyperæmia, which often occurs in acne rosacea also, is well illustrated in this case. The scar here differs very little from that seen in the other cases. There is one point to which I wish to call particular attention, and that is the method by which such sores as these should be wiped out. Do not rub the lint over the sore, but stretch the sides of the sore apart and press down the lint into the opening, allowing it to remain there long

enough to soak up all the debris. I will order for this case an ointment containing ℥j of the ointment of the nitrate of mercury and ℥vii of cosmoline. This should be put on patent lint and then placed over the sore.

*Case IV.*—Does not differ much from those which you have just seen. An examination of the sores here reminds me of one other point. In touching these spots with caustic potassa be sure to sweep the caustic round the edges of the eroded surface. The edges of the sore are always blocked up by lymph and as the cicatrix travels from the periphery to the centre, the space round the edges must be clear from obstructions so that the blood vessels may find their way in, for until the vessels at the sides are in their normal condition nothing can be done towards the formation of cicatricial tissues. The treatment of *Case IV* must be the same as that for *Case III*.

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## CLINICAL REMARKS ON GONORRHOEA IN THE FEMALE.

Delivered at Pellicane Hospital, New York.

BY

JOHN T. DARBY, M. D.,

Professor of Surgery in the University Medical College, New York.

[REPRINTED FOR THE HOSPITAL GAZETTE.]

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**GENTLEMEN:** The woman I now show you is suffering from specific gonorrhoea. The local symptoms of which she complains are great heat and pain in the vulva, a profuse yellowish discharge, great burning and stinging pain in micturition and pain in the back and groin. She also has some general symptoms, such as fever, malaise, loss of appetite, etc. On examining the parts you observe that the nymphæ are very much inflamed, red and swollen, and bathed in a rather profuse ichorous discharge. The vagina is hot and exceedingly tender to the touch, and the urethra is in a condition similar to that of the neighboring parts.

We may often have a condition of non-specific vaginitis, which is similar in very many respects to the case I now show you, which, however, has a specific history, but if there be doubt concerning the origin of the disease, it is often a most difficult and many times impossible point to determine whether it is specific or non-specific, whether or not it has arisen from previous contact with a person suffering from gonorrhoea. There is one point that may aid you in the solution of the problem, but even when this condition is present you may still be in doubt, and that is the presence of inflammation in the urethra. In one case there is usually an intense burning in the urethral tract, while in non-specific vaginitis this is usually absent. I recollect one case now of a married lady who had acute vaginitis, with whom I am positive there had been no illicit connection, and her husband was perfectly free from disease, yet she had this same inflammation and burning in the urethra.



We may have gonorrhœa attacking one part alone of the genital organs, either the urethra or the cul de sac back of the cervix. In cases where this is suspected a very careful examination should be made. The inflammation might exist only in Douglas, cul de sac and yet be sufficient to infect the male. In such cases we would be likely to have pain in the same situation as with a pelvic inflammation. When the inflammation is in the urethra, we have tenesmus, burning, and scalding. When the valva is involved, as in this patient, the parts are sometimes immensely swollen, very red, bathed in discharge, and so tender, that the slightest touch causes severe pain. In well marked cases the temperature of the body is raised, and other general constitutional symptoms are quite prominent.

A few words as regards treatment. It is almost useless to attempt to cure the disease, when it exists in the female, by the administration of internal remedies, and it is almost as impossible when the disease exists in the male. The days of copaiba, cubeb, etc., are passed. The only proper treatment is a local one, and general treatment is only beneficial for the constitutional symptoms, or to make the urine less acrid and irritating to relieve the pain in micturition. Alkalies given by the mouth answer the latter indication.

In a severe case like the present, I should advise absolute rest, elevation of the hips, and the use of such local remedies as will assuage the pain and inflammation. The only medicines to be administered internally are to prevent the burning in the urethral tract. I discard entirely copaiba, turpentine, and the like as they do no good, while on the contrary they do harm by disturbing the digestion.

Use lotions applied to the part itself to act as a sedative, lead lotion is the best where there is a good deal of inflammation without very much suppuration. Direct the patient to sit over a vessel, and then by means of a fountain syringe inject the parts well. The continuous application of cold is sometimes very beneficial. If the bowels are constipated give a laxative to cause a free action, common Epsom salts or seidlitz powder will do very well. We do not wish to cause a diarrhœa, but simply to produce a few active movements so as to help remove the congestion.

The diet should be regulated so as not to be too stimulating. Rice and milk with stale bread may constitute the food until the fever has abated. If the fever runs high we may give tincture of aconite, or the tincture of gelsemium sempervirens. This latter is one of the best remedies I know of for the purpose in this disease. Understand, gentlemen, that I do not believe this agent has any specific influence on the disease, but it simply reduces the constitutional disturbance produced by a local cause.

I think it unnecessary to name over to you any more remedies, because their name is legion, but I simply wish to urge you against using any of the long list of nostrums for this purpose, or giving medicine by the mouth with the idea that you are in that way going to cure the disease. Use local measures entirely.

Sometimes the discharge is very profuse. In such a case, use warm water for the injections instead of cold as I directed you at

discharge. When suppuration is checked the warm injections are better and more often they are much more comfortable to the patient. In addition to the warm water injections, you may use astringents such as acetate of lead or tannic acid. Opium may be combined with these remedies as it tends to relieve the smarting they produce, and prevents pain by its direct action.

Another remedy of considerable efficacy is chlorate of potash. This may be used alone or in combination with the bromide of potash. A very good prescription is the following:

℞

Potas. chlorat.	=	
Potas. bromid.	=	
Aluminis	=	
Aquæ fervent,	O ij,	M.

This is one of the best remedies to alleviate the pain and stop the discharge.

I can not now go fully into the sequelæ of gonorrhœa, which sometimes lasts a considerable time. Dr. Noeggerath of this city, makes the astounding statement that when a man has once had gonorrhœa, it remains with him in a latent state, and that when he gets married he contaminates his wife with the disease. He asserts that various diseases of the pelvic organs, such as endometritis, perimetritis, etc., almost invariably follow. Whether this is so or not, I do not pretend to say. It is certainly a broad and astonishing statement, but the doctor is good authority, and we must attach some importance to what he says.

## TRANSLATIONS.

### ON THE USE OF CURARE IN THE TREATMENT OF EPILEPSY.

DR. C. F. KUNZE.\*

My experiments with Curare (Woorara) in 35 cases had very different results. Nine of the 35 cases made a perfect recovery. In most of them the disease had not been existing for a long time, say one, three or five years; in two of the successful cases the patients had been epileptic subjects for over 20 years. Among those who recovered there were some cases in which the disease had produced a well defined influence on the mental condition of the patients. Two of the cases which recovered were undoubtedly cases of inherited epilepsy, the history of these brothers is given below. I could obtain no good effect in old drinkers. My experience with Curare leads me to say that *Curare is one of the most efficient remedies for epilepsy*. A case of epilepsy should not be regarded as permanently

\**Practical Medicine*, 7, 1888, 189.

cured, until a long time after the occurrence of the last attack. A short time ago I saw the return of the disease after an apparent recovery, extending over a period of 4 years.

I make a solution of Curare according to the following formula :

R

Curare,	grs. vii. ss. ( $7\frac{1}{2}$ )
Aqua. dest.	m. 75.
Acid hydrochl. pur.	m. i.

hypodermically, and I inject about 8 drops every 5 or 6 days.

The addition of this small amount of hydrochloric acid makes the solution a clear one, and by this slight modification of my former formula I have avoided almost entirely the severe abscesses at the point of injection, of which I spoke in the 1st edition of this book.

*History.*—Edgar and Hugo Ufer are the sons of a subaltern officer in the Internal Revenue service at Botterfeld, Prussia. The father sustained a severe injury on the head, when, in 1846, during his service as a soldier he tried to stop the runaway of four horses attached to the carriage of the late King Frederick William IV. of Prussia. He was thrown down, dragged along for a distance and received a kick on the head by one of the four stallions. In consequence of the injuries brain symptoms developed, and the man suffered for over a year from convulsions and very severe headache. Five or six years later the injured man married and became the father of two sons, both of whom were attacked with epilepsy, one in his 18th and the other in his 13th year.

*Hugo*, the older of the two brothers, is now 25 years of age, and of sickly constitution. The first attack occurred July 6th, 1871, lasting for about one minute, another attack of somewhat longer duration took place the next day, being followed by three attacks on July 9th, occurring with intervals of from four to five hours. July 10th, again, three attacks; July 11th, a light, and three-quarter hour afterward a severe attack, lasting for about fifteen minutes. This last attack commenced with a disposition to weep, dizziness in the head, followed by a sudden unconsciousness. After the attack was over, there was a sensation of numbness over the entire body, the speech was heavy, the patient felt very tired and suffered from very severe headache. From July 11th to July 16th, generally, three attacks occurred daily. July 16th, 1871, the first injection of Curare was given. After the injection the patient felt slight symptoms of unconsciousness and dizziness, until towards night he felt perfectly well.

No more epileptic attacks occurred after the first injection. Once every week I gave the patient an injection. After three weeks the prodromatic symptoms, indicating the coming attack, became prominent, but disappeared soon after the prompt injection of Curare. After I had, during the period of six weeks, used about 3 grs. of Curare I omitted the injections, and until to-day end of 1877 no more attacks have occurred.

*Edgar*, the younger brother, is now about 21 years of age, and is also not very strong. The first severe attack occurred March 21, 1870, the second in June, the third in November, 1870. The duration of the first attack was not quite an hour, with the second one the pa-



tient was unconscious from 4 P. M. until midnight. The attacks came on without the outcry, and commenced with the sensation as if a stream of cold air was flowing from the mouth. Between the large attacks small ones of a few minutes duration always occurred. The first injection of Curare was given July 20th, 1871. From July 21st to July 25th there was some dizziness, and the patient felt as if an attack was coming on. This sensation, however, disappeared before long, and not a single attack occurred since that up to date (1877). The quantity of Curare used also amounted to 3 grs.; the injections were first given every week, afterwards every second week.

*Hugo Noack*, in Halle, Y. S., suffered since infancy from convulsions, which first commenced when he was only  $\frac{1}{2}$ -year old and returned about once in four weeks. No other member of the family ever had epilepsy. The attacks always were complete. As to the cause of this disease, the mother of the patient states, that she once nursed the child shortly after a time of great anger. She says the attacks first made their appearance two hours later, and never disappeared since. The unfavorable influence of the disease on the patient's mental faculties, was well defined during the age of school-years, he did not learn well at all, and especially his memory, was gone almost altogether. The attacks occurred so frequently, that hardly a day or night passed by without convulsions. Noack came under my treatment in his 23rd year. After from six to eight injections the convulsions disappeared, and since then, for about eight years, no attack has occurred. Noack is now 31 years of age, married, and is the father of two children, none of whom have suffered from convulsions, up to this time. His mental faculties, and especially his memory have greatly improved since his recovery. Noack is employed now on one of the large railroads, and fulfills his duties satisfactorily to his superiors.—PAUL H. KRETZSCHMAR, M.D.

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## PERISCOPE.

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BOYD, UNION OF FRACTURE OF THE NECK OF THE FEMUR WITHIN THE CAPSULE, WITH REPORTS OF CASES AND COMMENTS THEREON. BY WILLIAM BOYD, M.D. *Virginia Med. Monthly*, June, 1878. p. 269, et seq.

Dr. Selden reports four examples which have come under his own observation, of supposed cases of intra-capsular fracture united by bone.

In case 1, the patient between 60 and 70 years of age fell upon the trochanter, and Dr. Selden diagnosticated intra-capsular fracture, but as it seems to us from insufficient data. She recovered and had a useful limb. Two years later she died, and the autopsy, made by Dr. Selden and two other surgeons, revealed a shortening of the neck of the femur to the extent that a finger could scarcely be laid between the head of the bone and the trochanter. "Upon sawing vertically through the head and neck of the femur, it was very manifest that fracture, a very oblique one, had commenced at the juncture of the head and neck, and that the upper fragment of the neck had penetrated the head for one inch and a quarter, the hard bony structure of the neck still remaining very obvious, and contrasting beautifully with the cancellated structure of the head, with which, gradually blending, it was firmly united". The gentlemen were not permitted to remove the specimen, and it was buried with the patient.

It was determined where the line of fracture "commenced," as Dr. Selden *thinks*; but if so little of the neck was left, it is not certain that the commencement of the line of fracture was not outside of the capsule, the portion of the neck attached to the head alone having been removed by absorption, as is usually the case, or the trochanteric fragment having been driven into the head until the reflected capsule was brought in contact with the head, or nearly so, and in that case, it is not always easy to say, two years later, whether the line of fracture was not partly within and partly without the capsule. One who reads the views of Malgaigne, Robert Smith, of Hamilton, and of Geo. H. Smith of Brooklyn, upon the pathology of these accidents, and upon the normal condition of the capsule, will see readily that the gentlemen might, in their necessarily brief, and imperfect examination, have made some mistake in this respect. Beside all this, it is well known now, that an appearance very similar to that presented in the spongy and cancellated tissue of the head and neck, is sometimes the result of purely post-traumatic changes, where no fracture had ever taken place.

On the whole, some degree of doubt rests upon the case, although one might admit that it *may* have been a genuine case of intra-capsular fracture united by bone. The *possibility* of which, Dr. Selden will excuse us for saying, Sir Astley Cooper never denied.

The 2nd case was not verified by an autopsy, and we should have no hesitation in view of the cause, symptoms and result, in pronouncing it a case of extra-capsular fracture, and it was followed by the usual results, shortening, etc.

The 3rd, case appears to have been—probably—an intra-capsular fracture: but there is no evidence that it ever united by bone. At the conclusion, the remarkable statement is made that the surgeon to whose care she was subsequently entrusted, after her recovery, reported "there is no apparent shortening of the limb." If Dr. S. means to say there is actually no shortening, the case stands alone in the history of these accidents.

Case 4th, may have been either intra- or extra-capsular, and there is

no evidence to show that there is union by bone. The fact that the patient walks does not prove this. A fibrous union or even no union at all, in the case of an intra-capsular fracture, permits most patients to walk as well as either of these patients were able to walk.

We think Dr. Seldin attaches too much importance to ecchymosis as a diagnostic sign between intra and extra-capsular fractures. It is by no means uniformly present in extra-capsular fractures, nor is it always absent in intra-capsular fractures, and it may be present where there is no fracture.

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ISCHIATIC DISLOCATION REDUCED AFTER FIVE WEEKS. BY GEO. E. FENWICK, M.D., OF MONTREAL.—*Canada Med. and Surg. Jour.* May 1878.

The patient, was a young man 21 years old. Under chloroform, on the 6th of April, 1878, Dr. Fenwick, twice failed by the method of "rotation," and in each case threw the head of the bone upon the foramen thyroideum. By reversing the movements the bone was carried again to the ischiatic notch. In the third attempt the operator placed his hand firmly on the ascending ramus of the ischium, when the bone slipped with ease into the acetabulum."

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SURGEON'S DUTY IN CASE OF MUTILATION OF THE HAND. BY M. VERNEUIL.—*Can. Jour. of Med. Science*, June, 1878.

Apropos of a little operation, which I am about to do on a young patient who entered our wards three months ago with a crushed hand, I must once more insist upon the course a surgeon ought to pursue in wounds of the hand. Whenever you shall have to treat a patient suffering from any crushing of the hand, adopt as an absolute rule, to excise nothing and to trim nothing with a knife. In those cases the surgeon ought only to think of warding off and controlling primary complications; but he should leave to nature the care of saving whatever she can save; she will preserve more than the surgeon, and will always waste less. We do not sufficiently clearly conceive how much of the lacerated, and on the first day condemned, tissues may resume their vitality and be repaired. Allow nature then to act. Wait. Later, after weeks, or even months, when cicatrization shall have occurred, then only should the surgeon interfere and trim the wound in such a way as to procure for the patient the fullest use of the limb.

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RAPID LITHOTOMY WITH EVACUATION, BY H. J. BIGELOW, M.D.—*The Doctor*, June 1878.

Dr. Bigelow has proposed this name for a method of dealing with vesical calculus, first practised by him. Briefly, it is to complete the crushing at a single sitting, and at once to evacuate the detritus, small stones have been crushed at once several times, but Dr. Bigelow dealt thus with large ones, to enable him to do so he has modified the evacuation collector, and it would appear that the method is very



successful. He gave some account of it in the *Boston Med. and Surg. Journal* of Feb. 28, and March 7, and in the same periodical for May 2. Dr. T. R. Curtis supports him with details of three most successful cases. It would appear that the working of the lithotrite in skilled hands is really less dangerous than the presence of the fragments which are usually left behind. The recovery of the patients has hitherto been most rapid. In all, thirteen cases have been treated by this method with only one death, just the same mortality as attended Sir H. Thompson in his whole experience, one in thirteen. If the aim of the surgeon be to get rid of the stone in the shortest time with the least danger, and if future results prove as favorable, it would appear that Bigelow's operation may take the place of lithotomy, where many sittings for lithotripsy seem to be contradicted.

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#### OVARIOTOMY SUPERSEDED, BY M. TRIPIER.

A proposal has been brought before the Paris Academy of Sciences by M. Tripier, to establish a fistula between the cavity of an ovarian sac and the exterior. He has tried it in one case with success. The interior of the sac can in this way be washed out or treated with iodine injections or cauterized. He has used injections of iodized water daily. The galvano caustic is used to establish the fistula. This operation is less formidable than ovariectomy, and can be easily carried out, but, of course, is not devoid of danger, but it may be applicable in cases where gastrotomy is refused or inapplicable. With regard to injections, they should not be too strong. We may point out that death from poisoning by iodine has been recorded where the drug was injected.

This operation may be compared with electrolysis for ovarian dropsy.

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#### NEWS ITEMS AND NOTES.

**Poisonous Salicylic Acid.**—A British Exchange thinks that an explanation of the ill-effects induced occasionally by salicylic acid probably lies in the difference between the natural acid and the product produced artificially. It is a fair assumption that the latter is not always devoid of carbolic acid, which would account for many of the distressing gastric and head symptoms that have been observed in patients who had been taking the drug for some time. A "note on salicylic acid," read by M. J. Williams, F. C. S., at a recent meeting of the London Pharmaceutical Society, states that his experiments have convinced him that the artificial acid, as supplied in commerce, is really made up of two bodies having very different properties.—*Med. & Surg. Rep.*

**Appointments, Honors, Etc.**—Lister has been made an honorary member of the Royal Society of Physicians of Vienna. Charcot, J. Marion Sims, Hutchinson, Pagni, and Sommer, have been elected corresponding members of the same society.

—Mr. Edward Marshall, has been elected Ordinarius Surgeon

to St. Thomas' Hospital, London, in place of Mr. Liebrich, who has resigned.

—Dr. Calmar, Professor of Pathological Anatomy in Breslau, has accepted an invitation to the same chair in the University of Leipsic, and is succeeded by Dr. Ponfick, Professor in Gottingen.

—We are highly gratified to learn that both prizes of the American Medical Association have been awarded to Dr. John A. Wyeth, of this city, for an essay on the surgical relations of the carotid, subclavian, and innominate arteries.

—Dr. Lewis A. Stimson has been appointed Professor of Pathological Anatomy in the University of New York.

—The Council and Faculty of the University of the City of New York have conferred the honorary degree of A.M., on Dr. Edward J. Bermingham, and that of LL. D., on Dr. S. Oakley Vanderpool.

—Debernard has been appointed to the chair of Physiology in France to succeed Claude Bernard.

**Chrysophanic Acid.**—Neumann, of Vienna, after extensive trials of chrysophanic acid (derived from galls powder) in the form of ointment, says it is an excellent remedy for herpes tonsurans, pityriasis versicolor, and psoriasis vulgaris; even inveterate forms of psoriasis can be abolished by this means.

**A Novel Milk Adulteration.**—To the *Analyst* for April, Dr. J. Muter communicated the result of examination by him of a sample of milk to which his special attention had been directed, in consequence of the very low percentage of ash which his preliminary analysis showed. After numerous researches, he at last found that the foreign matter in the milk was glycerine, which is certainly a most ingenious addition, as a solution of that body in water of 12 per cent. strength has a specific gravity of 1.030; and he found, after several experiments, that 35 per cent. of such glycerine water might be added to milk without being detectable either by gravity or by the ordinary "solids not fat" process. Moreover, such an amount does not give any extraordinary sweetness easily detectable by the taste.

**Dangerous Cosmetics.**—In the *Analyst* for April, Mr. Charles Presse says that he had submitted to him for analysis a small quantity of a white substance, in the condition of a magma, and he was informed in reference to it that it was used by an American lady as a face cosmetic. The lady, unable to purchase the preparation in London, desired to have some manufactured especially. The result of his examination showed that the substance consisted wholly of *calomel*, the wetness of the magma being due simply to water.

**Ergot in Polyuria without Sugar.**—*Revue La France Médicale* publishes a case of polyuria following a fall into the sea, cured by the administration of, for six days, 50 centigr. ( $7\frac{1}{2}$  grs.) and afterwards one gramme of powdered ergot of rye. Valerian was found to be useless, and atropine, although it diminished the quantity of urine when given in doses of 1-66th gr. twice a day, produced unpleasant symptoms.

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# THE HOSPITAL GAZETTE

AND

## ARCHIVES OF CLINICAL SURGERY.

A WEEKLY JOURNAL OF MEDICINE, SURGERY, AND THE COLLATERAL  
SCIENCES,

EDITED BY

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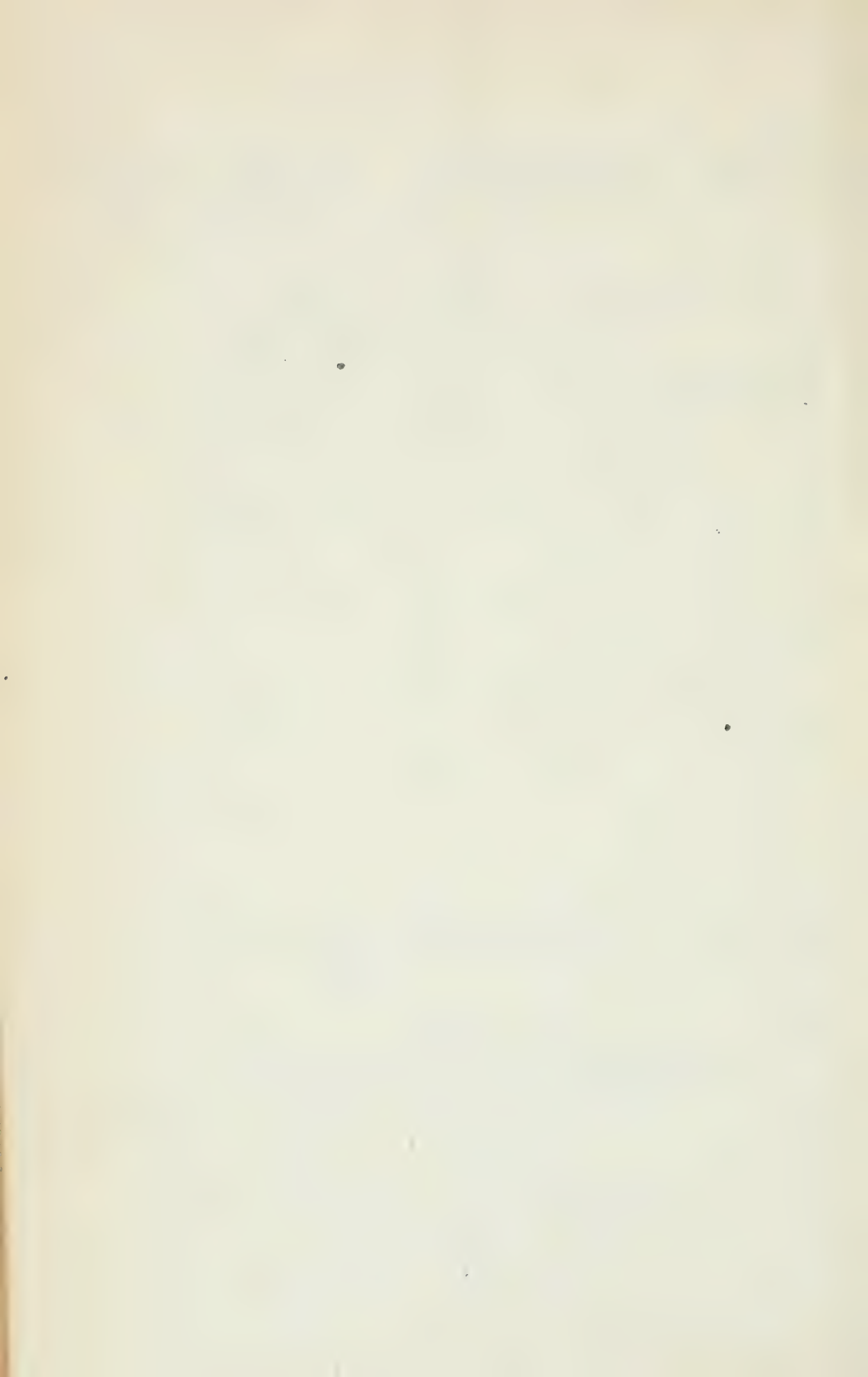
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[The editors hold themselves in no way responsible for the views expressed by contributors.]

### LECTURES.

#### A CLINICAL LECTURE.

Delivered at the University Hospital

BY

WM. GOODELL, A.M., M.D.,

Professor of Clinical Gynæcology to the University of Pennsylvania.

(Reported for THE HOSPITAL GAZETTE.)

#### I. SUBPERITONEAL FIBROID TUMOR.—II. CARUNCLE OF THE URETHRA.—III. CANCER OF THE CERVIX AND VAGINA.

*Subperitoneal Fibroid Tumor.*—This patient is forty-three years old and has been married for twenty years, but has never conceived. Her menses have been regular but are always accompanied by a great deal of pain. There has been frequent micturition with bearing down pains and a dragging sensation in walking. We very commonly find these symptoms in women who have been married for any length of time without bearing children. This woman wishes exceedingly to have a child and has come here to ask me what is the matter, and if necessary, to be put upon the proper treatment.

Some years ago a woman came to my office complaining of pretty much the same symptoms as this patient. She had been married for ten years and had had no children. She wanted to know what I could do for her. I examined her and found some ante flexion of the womb and some slight stenosis of the cervical canal. I dilated the cervix and she went away greatly relieved of her dysmenorrhœa. Still she did not become pregnant. Again I dilated the cervix, but still no conception took place. I was debating with much perplexity what to do next, when I bethought me of the husband and told the wife to send him to me. After a good deal of hesitation the man was led to tell me that some time before seeing me he had gone to consult some quack with regard to his wife's sterility, and that this person had examined his semen and told him that there was no life

in it. After putting him through a long course of electrical and medical treatment, the same person again examined his semen and told him that it was all right. Upon still further questioning, the man confessed that when fifteen years of age, he had been confined to bed for some time by a severe attack of gonorrhoea, followed by epididymitis and orchitis. Is it possible, thought I, that this man's semen has been permanently affected by the gonorrhoeal poison, and I sent a specimen of the fluid to a well known microscopist, with a request that he would examine it. He sent me back word that he could not find a single spermatozoon in it. There was a case in which I had been trying all manner of things to render the wife fruitful, whereas the husband was the root of all the trouble.

I have mentioned the above case to you not because I think this one resembles it, but just to show you that the difficulty does not always lie with the woman.

There is some stenosis in this case and a remarkable condition of antelexion. Upon introducing my hand into the woman's vagina, I feel two tumors. The one on the right side is slightly larger than a marble, that on the left much larger than the ordinary virgin womb. The tumor on the right may be a second womb. Let me try to introduce this very delicate sound. I find that it has gone into the small body on the right side. That must be the virgin womb. I wonder what the other tumor can be. I cannot by any means cause the most delicate probe to enter it. You must be exceedingly careful in manipulating with these delicate probes. The least violence will force their points into the abdominal cavity. Several years ago, I remember, I was sounding a patient with one of these instruments, when the tissues suddenly seemed to yield and the probe ran right into the abdominal cavity. In other cases the instrument may enter the Fallopian tube and so mislead you by the distance it has traversed.

If this is a case of double uterus the one on the right is certainly impervious. And yet pregnancy will very often occur under these circumstances. Further examination compels me to say that the body on the right is not a second womb. I am very much inclined to consider it a subperitoneal fibroid tumor which is sessile and much larger than the virgin womb. I can very plainly distinguish a notch between it and the womb. Yes, I am now perfectly satisfied that it is not a womb. The presence of this subperitoneal tumor has evidently been the cause of all the woman's trouble at her menstrual periods.

The external os of the womb on the right side is a good deal stenosed, so I pass in a dilator until it reaches the fundus, and then withdraw it half an inch before beginning to dilate. You must be very careful how you meddle with a womb which has a fibroid tumor attached to it. I think dilatation is enough for the cervix. The tumor is out of the way of all operative interference. I never met with a case like this before. As dilatation has caused a good deal of bleeding I will apply a styptic, not Monsel's, for that clots the blood and should not therefore be used.



It is very plain as to what has been the reason of the woman's sterility. We give the name of polypus to any tumor which starts from the wall of the womb. If the tumor is in the substance of the wall we give ergot to try and force it out. The direction in which it is forced depends upon whether it is nearer to the peritoneal cavity or that of the womb. This tumor is situated just beneath the peritoneum. If I were to give ergot in this case, the tumor would be forced into the peritoneal cavity, and would cause a great deal of pain and annoyance there, while I should be just as far as ever from having removed the growth. A professor of gynecology at Montreal, has performed ovariectomy with the hope of effecting a reduction in the size of a subperitoneal tumor. I believe he was moderately successful in the operation. The end, however, scarcely justified the means. Our best treatment in such cases can be only palliative. We must try to keep up the patient's general health and treat symptoms as they arise. Pregnancy is of course entirely out of the question.

*Urethral Caruncle.*—This affection is due to hypertrophy of the urethral nerves and blood vessels. It causes the most agonizing pain in micturition, particularly in voiding the last few drops of urine, and in coitus just as the male organ enters the woman's person. There is a particular way of examining for a caruncle without offending your patient's modesty. Most women will submit without the least demur to an examination with the speculum. While exploring the uterus with the index finger, you may at the same time, with the thumb, press upon the meatus, and notice whether the pressure gives rise to any pain. During the introduction of the speculum, you can always directly inspect the parts with your eyes without the knowledge of the woman.

As regards the treatment of this caruncle, the patient being thoroughly under the influence of ether, I am going to catch it up with a tenaculum and nip it off. If the bleeding is very copious, it can always be promptly stopped by pressure upwards against the pubic bone from below. This can be easily effected by means of a sponge placed in the vulva. As caruncles are very likely to return, I am going to scarify the seat of the growth with a red hot large sized diamond needle. I ought to use the *Cautére-Paquetin* for this purpose, but I have forgotten to bring it with me. It is very good treatment however, to apply a red hot needle for 1. you thus destroy the seat of the growth, and 2. you prevent hemorrhage. The application of fuming nitric acid will do in some cases, but the hot needle is better.

If the caruncle has a stem, as in this case, cut it off, of course, as I have done. This can usually be accomplished without the use of ether. But if the growth is sessile, suggest putting the patient under ether, for in that case an anæsthetic must be employed. If she submits, well and good, etherise her and proceed deliberately to cut out all the growth. If she will not take the ether, liquify some crystals of carbolic acid and apply them to the caruncle. After several applications of this sort you will have succeeded in mummyfying the

growth to such an extent that you can nip it off piece-meal, without giving rise to overmuch pain. An English gynæcologist has advised the use of chromic instead of carbolic acid. The chromic acid must be applied on a pointed sliver of wood, and should afterwards be neutralized in its action by means of bits of cotton dipped in a strong solution of carbonate of sodium.

*Cancer of the Cervix and Vagina.*—The patient is fifty-one years old; her youngest child was born thirteen years ago. Since that time her monthlies have been very irregular. Now she has a "show" every few weeks. Two or three years ago she suffered a great deal from piles. Her principal symptoms at present are throbbings and bearing down pains. As soon as my hand enters the vagina it comes in contact with a dense occluding mass. There is also a great deal of induration of the recto-vaginal septum. The patient cannot sleep at all at night. During the past four months she has lost a great deal of flesh. She has you see, the pathognomonic cachexia.

I will order her the following mixture :

R	Hydrarg. chloridi corrosivi,	grj,
	Liquor arsenici chloridi	f 3 ss,
	Tinct. ferri chloridi,	f 3 ij,
	Acidi hydrochlor. dil.,	f 3 ij,
	Syrupi,	f 3 ijss,
	Aquæ, q. s. ad	f 5 vj.

M S. Table-spoonful in half a tumblerful of water twice daily.

She had better take ergot to contract the womb and so try and starve out the growth. One grain suppositories of the aqueous extract of opium will be necessary occasionally, to quiet the pain.

Now that the woman has been taken out, I can speak to you plainly. She has cancer and yet I would not tell her so to her face unless I were absolutely forced to do so. Some time since a lady of wealth came to my office, sallow complexioned, and wretched looking, who had been losing blood constantly for the last twelve years. With much fear and trembling, she submitted to an examination, when I discovered that the only trouble was considerable fungous granulation of the lining membrane of the womb. I asked the lady why in the name of sense she had not been to see a physician sooner. She said that for twelve years she had resisted the piteous entreaties of her friends to see a doctor because she was sure that his examination would only confirm her fears, which were that she was suffering from cancer. Knowing what a horror women have of the disease, never tell them of its presence when you find it unless you are forced to do so—unless you are so cornered that you cannot extricate yourself honorably without confessing your discovery.

## ORIGINAL ARTICLES.

## CLIMATIC TREATMENT OF PULMONARY PHTHISIS.\*

BY

ALFRED L. LOOMIS, M.D.

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I pass to the consideration of the climatic treatment of pulmonary phthisis, a subject which at the present time is largely engaging the attention of the profession.

It is not my purpose to speak of the advantages or disadvantages of the different localities well-known as homes for phthisical invalids, localities which, during the past ten years an enormous amount of pamphlet literature has brought to the notice of the profession, as well as before the public. I shall endeavor rather to indicate some of the conditions and considerations which should influence one in coming to a decision in regard to the climate or locality best suited to each phthisical patient who is amenable to climatic treatment.

Before entering upon the discussion of the subject of climate as a therapeutical agent in the treatment of phthisis it seems necessary to briefly consider those anatomical changes which occur in the lung tissue in the course of this disease. Formerly, every variety of phthisis was believed to be due to a neoplasm called tubercle which was developed in lung tissue, and afterwards passed through a great variety of changes. At the present day many believe that there is nothing in these anatomical changes which cannot properly be classed under the head of inflammation. The processes of inflammation as we now study them are so numerous and varied, that they include all the changes that are found in the lungs of those that die of any form of phthisis. While one class of these changes may be produced by inflammatory changes in the cell elements of the lung tissue, another class may be due to an inflammation which results in the production of serum, fibrin, and pus. Necrotic and reparative inflammatory processes may give rise to another set of changes in the lung; and a tubercular inflammation may cause the development of those nodular masses, concerning which recently there has been so much discussion. While I recognize the fact that in many instances it is very difficult to draw the line of distinction between what has been called tubercle, and the changes produced by one or all of these inflammatory processes, I am inclined to the opinion that pulmonary phthisis is no more specific in its character than is chronic interstitial nephritis, and the varying appearances presented by the lungs in those who die of pulmonary phthisis are accounted for by the variations in the type, and in the primary seat of the inflammatory changes, combined with their different stages of evolution.

In one class of cases the primary changes are in the cavities of the alveola and bronchi, and are epithelial and cellular in their nature. This class I would include under the head of catarrhal phthisis.

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\*Read before the American Medical Association, at Buffalo, June, 1878.



In another class of cases the primary changes occur in the bronchial and alveolar connective tissue, and are connective tissue hyperplasias. This class I would include under the head of fibrous phthisis.

Again, in another class of cases the primary changes occur in the lymphoid elements of the lung, in which hyperplasia of the lymphoid elements associated with connective tissue hyperplasia form little masses or nodules, which are ordinarily termed tubercle. This class I would include under the head of *Tubercular Phthisis*. These different anatomical changes in the lungs differ so widely and give rise to such varying phenomena in the course of their development, that in order properly to estimate the value of remedial agents, the power of hygienic surroundings, and of climate to prevent or arrest their development, there must be a careful analysis of our cases that we may determine the variety and stage of development of each case which comes under our observation.

In tubercular phthisis I have never known climate to produce favorable results, while in the other two varieties it has shown such power in arresting and controlling the disease that I have been led to the careful study of those climatic conditions which are able to produce such results. Although we are unacquainted with any climatic conditions which render the development of phthisis a necessity or an impossibility, we do not know that there are certain climatic conditions which are antagonistic to its development.

With our present knowledge of the etiology and morbid anatomy of this disease we must believe that the primary catarrhal processes as well as the later phthisical developments depend to a very great extent upon atmospheric influences, their mode of action as yet we do not fully understand. We cannot even satisfactorily explain "how we take cold." We can only say that among these active atmospheric influences are temperature, humidity, and some atmospheric element as yet undetermined. If one, who is exposed to these influences has no phthisical tendency, either hereditary or acquired, he has simply a bronchitis or pneumonia; if on the other hand, he has a phthisical tendency then these influences produce or lead to those changes in the lung structure which are recognized as phthisical developments. These may be of the character of catarrhal pneumonia or peri-bronchitis. Taking cold cannot be regarded as the cause, it only awakens the phthisical tendency into activity.

There can be little question but that there are certain atmospheric germs which, when drawn into the lungs on inhalation act in a chemico-local manner. They act not only upon the surface of the mucous membranes, but originate destructive processes in the lung parenchyma. Even, when a phthisical constitutional tendency does not exist in an individual, particles of dust mixed with the inhaled air taken into the lungs will excite inflammation by their continuous mechanical irritation.

This inflammation is not limited in its effects to the mucous membrane and its epithelium, but by penetrating deeper produces destruction in the lung substance, and thus excites processes which end in

cicatrization and thickening, or necrosis and ulceration, and finally develop a condition of phthisis. If this occurs in perfectly healthy individuals, we can readily understand how, under such influences, phthisis will more readily and certainly be developed in one with a **constitutional tendency**.

Dampness of the atmosphere depending on dampness of the soil is unquestionably a powerful agent in developing phthisis. If to this is added the inhalation of dust and unwholesome germs, the chances of developing phthisis must be greatly increased.

During the past few years in our country and in foreign lands, monographs have been published containing carefully prepared tables in regard to the temperature range of different health resorts, the amount of rain-fall, the degree of atmospheric pressure, the prevailing winds, the altitude, etc. Some localities are mentioned as especially desirable for phthisical invalids, on account of their equability of temperature, other places are recommended on account of their luxuriant vegetation or the peculiarity of the soil. Some are thought desirable on account of their dryness of atmosphere, others on account of the humidity of the atmosphere.

Vague and uncertain are the statements found in the literature of this subject, and widely different conclusions have been arrived at by various observers. Places which at one time were the favorite resorts of consumptives have been abandoned as unhealthful and dangerous. Directly opposite views are held in regard to the therapeutical value of the same resort. An educated physician, who was in the last stage of this disease, and who had vainly tried all climates, expressed what I mean, when he said to me: "In attempting to follow the instructions of my New York adviser, and also those of my Philadelphia medical adviser, the one recommending a cold, and the other a warm climate, I made the result a failure."

We need not be surprised at all at this if we consider what a revolution has taken place within the past ten or fifteen years in regard to the morbid anatomy and etiology of phthisis; its climatic treatment would necessarily have correspondingly changed, if it were based exclusively on theoretical grounds.

Fifteen years ago the belief prevailed that the essential climatic element for the arrest or cure of phthisis was a warm, dry atmosphere. More recent observations and investigations have settled the fact that phthisis is not necessarily hastened in its development by a low temperature, neither is it prevented or cured by a high temperature. As yet, no one has found the ideal climate for the phthisical invalid. Again, it has been claimed that the higher the altitude the fewer were the cases of phthisis, until at a certain elevation it entirely disappeared, and that this diminution in the number of cases was due to diminished atmospheric pressure. More extended observation has demonstrated that the altitude at which this proposed immunity exists varies with the latitude, that the nearer the approach to the equator the higher must be the altitude in order to accomplish the desired result. This fact seems to prove that the development of phthisis does not depend upon atmospheric pressure, for the laws which govern atmos-



pheric pressure are ever the same at a given altitude. Elevation was also regarded as the cause of this immunity from phthisis. This theory, however, was disproved from the fact that whenever the inhabitants of elevated regions engaged in manufacturing pursuits which confined them in unwholesome air phthisis was very frequently developed. Nevertheless, this theory so rapidly grew in favor that a large number of phthisical patients were sent to the mountains. These more markedly improved than those who were sent to the milder regions of the southern lowlands. A new series of investigations soon established the fact that this immunity was not due to altitude but to the absence of organic matter in the air of these high elevations. It is now well established that organic substances, whether gaseous products of putrefactive processes, or microscopic germs floating in the atmosphere, when they reach the bronchial tubes in the inspired air, are capable of exciting morbid processes which lead to serious results. It has also been demonstrated that these organic substances are more numerous in the lower than in the higher strata of the atmosphere, and that they continue to diminish the higher we ascend, until a certain height is reached in mountain ascent when they entirely disappear. If irritation of the mucous membrane of the respiratory passages is the primary exciting cause, in a large proportion of the cases of phthisis, may not the purity of the air in these elevated regions be the one all important restorative agent? When I speak of the purity of the atmosphere, I mean not only its freedom from what are ordinarily called impurities, but its freedom from atmospheric germs. Professor Tyndall has shown by actual experiment that the air as we ascend becomes freer and freer from these atmospheric germs. His experiments with the sealed flasks were made to prove or disprove the theory of spontaneous generation, but facts are always the same. Prof. Tyndall also proved by careful experiment that dust laden air is necessary in order to the production of these living organisms, that it has an effect similar to putrid liquids upon a vegetable infusion, differing only in degree, while vegetable infusions exposed for months to optically pure air remain free from infusorial life, and consequently that germs are diffused through the atmosphere, although the air in different localities may be infected in different degrees. In the presence or absence of these organic substances we have a very important element of difference between the air of the lowlands and the air of the mountains. That atmospheric germs are much more abundant in cities and large towns has also been plainly shown. Dr. Schreider in his lectures on Climatology states that ozone and rain have the power of purifying the atmosphere, that is freeing it from organic substances, that the purifying power of ozone depends upon its oxydizing power, that while oxygen requires a considerable degree of heat before it will combine with other substances, ozone will do so at an ordinary temperature. Ozone destroys the products of decomposition by chemically combining with them. The presence of ozone in the atmosphere is presumptive evidence that it contains no organic substances. The air of the ocean and high mountains is richer in ozone than that of the plains. As has been already said ozone purifies the air



of a locality by destroying injurious gases, and by oxydizing decomposing organic substances. It also promotes nutrition and blood changes by supplying to the respiratory organs a most active form of oxygen. Therefore when choosing a health resort for phthysical invalids, we should give the preference to a locality in which there is constantly an excess of ozone in the atmosphere, for experience has established the fact that there the climate is especially salubrious. For some years pulmonary invalids have been recommended to take up their abode in the midst of pine forests. It has been known that they did well amid such surroundings, but "why they did well" has been an unanswered question. The more extensive and primitive the evergreen forests, the better adapted is the climate to phthysical invalids. The turpentine exhaled from these pine or hemlock forests possesses to a greater degree than any other known substance the power of converting the oxygen of the atmosphere into ozone, thus rendering the air of these pine forests very pure, and consequently antagonistic to phthysical development. Experiment has shown that the direct inhalation of ozone has little if any power preventing or arresting phthysical development. We must, therefore, conclude that it is not the action of the ozone upon the respiratory surfaces that renders the climate of localities where it is found in excess especially salubrious, but that by its power of destroying noxious gases and atmospheric germs the atmosphere is rendered so pure that its action is favorable upon the respiratory surfaces of those predisposed to phthysical development.

It has been shown that showers purify the atmosphere. Rain becomes a hygienic agent as by it the solid particles are carried to the ground, and the atmosphere is freed from carbonic acid and ammonia. I am aware that this statement is in direct opposition to that of those who claim so much for those climatic resorts, where for weeks and months no rain falls. Doubtless long continued rains affect unfavorably a phthysical invalid, but localities where showers are not infrequent, where there is rain-fall sufficient to cleanse the atmosphere, seems best suited to phthysical invalids. Besides, observation has established the fact that whenever the atmosphere of a locality is dry, there are daily extremes of temperature. During the day, in such places, the sun's heat reaches the earth unimpeded and the maximum heat is high, while during the night the earth's heat unhindered escapes into space, and the maximum temperature is low. Hence the difference between the maximum and minimum temperature is greater where the air is driest.

Undoubtedly, a damp warm as well as a damp cold climate acts unfavorably upon phthysical invalids, but the peculiar dampness which acts most unfavorably is not usually present in those localities where there is the greatest amount of rain fall, nor is it present because large bodies of water are in close proximity, but it mainly depends upon the nature of the soil. To avoid this dampness the soil should be porous and sandy, a loam soil of sufficient porosity to permit the rapid filtering of water from its surface, so that after a heavy rainfall the surface will soon become dry. All clay soil drains slowly and imper-

fectly, and the peculiar dampness arises which act so unfavorably on phthisical invalids.

Laennec states that the dampness arising from such a condition of soil is one of the most certain developing causes of phthisis, and he makes mention of a locality having such a soil, in which the dampness was so constant and of such a character, that more than two-thirds of the resident population died of phthisis. In determining the fitness of a locality as a residence for phthisical invalids, I have come to regard the external configuration and conformation of the soil as of greater importance than the amount of rainfall, or the relative moisture.

Temperature has always been regarded as of very great importance in the climatic treatment of phthisis. For a long time a warm sedative climate was regarded as the suitable one for phthisical invalids; more recently, it has been claimed that a cold climate is the favorable one, and that phthisical mortality decreases as we go northward.

An extended clinical experience will lead one to accept both views as correct to some extent.

It is not the mean temperature of a locality which is of such importance in retarding phthisical development, but it is the absence of sudden and frequent changes. Whether a cold or warm climate is indicated in any given case, can be determined only by the experience of the individual prior to the phthisical development. Some are greatly depressed by a cold climate and exhilarated by a warm one; with others, the contrary holds true. There is no evidence that temperature has power to favor or arrest phthisical development. At the present time altitude is regarded as of great importance in the climatic treatment of phthisis. While there is no question but that usually the atmosphere 1,500 or 1,800 feet above sea level is purer, containing fewer atmospheric germs than that of the plains; it is equally true that the atmosphere of very many mountain regions is not thus pure, and does not furnish favorable results in its action upon phthisical invalids. For example, experience has shown me no place where phthisical invalids in all stages of the disease do worse than among the Catskill Mountains. Without exception, in those phthisical invalids under my observation who have resorted to this mountain range, the disease has made much more rapid progress than in any other locality. I find similar testimony given by other observers in regard to other mountain regions. We must therefore come to the conclusion that something besides altitude should be sought for in choosing a health resort for phthisical invalids. Much has still to be learned by careful observation and experiment as to the exact nature and limit of the influences which seem to act so beneficially in many mountain regions. As great restorative properties have been claimed for sea air as for mountain air. Migration to the sea shore in search of health in an ancient custom; the mountain exodus is of recent date.

Formerly it was claimed that sea and mountain air differed widely, not only in their effects, but in their composition, and that in mountain regions and by the sea are found the extremes of climate influences. Within the past ten years different analyses have been made of the air of both regions, and their similarity in composition is much

greater than their difference. Mountain air differs from sea air in that it is less dense, is of lower temperature, and is less humid. It resembles sea air in containing an excess of ozone, in its freedom from organic substances and from other impurities, and in being cooler and subject to less frequent variations in temperature than is the air of inland plains. For the most part the study of mountain climate has been merely a series of investigations into the physiological effects of diminished atmospheric pressure on the human organism ; but, these effects vary so greatly in different individuals that any attempt to determine the effect of such pressure is very unsatisfactory in its results. It has been proven by experiment that while a slight diminution in atmospheric pressure exerts no marked deleterious effect upon the human organism, a great diminution, say one-fourth of the ordinary pressure, gives rise to serious disturbances in nutrition, developing a condition which favors rather than retards phthisical development. While we find equal purity in the air of the mountains and the sea, and that the difference in atmospheric pressure has little to do in determining the beneficial or deleterious effect upon the phthisical invalids, clinical experience has demonstrated that while one class are benefited by sea air, another class do badly at the sea, and improve in the mountains. The question naturally arises, is it possible to determine without a trial of the region, who shall go to the sea and who shall go to the mountains ?

The experiments of Prof. Beneke seem to prove that tissue changes take place more rapidly on or by the sea than in the mountains : if this is the case we may readily arrive at the following conclusions : 1st. That individuals in whom the process of tissue change do not require hastening are better in the mountains than on or by the sea. 2d. Persons past middle life, in whom phthisis has been developed, do better in sea than in mountain air. 3d. Phthisical invalids should not go to the mountains unless they are capable of considerable muscular activity. 4th. As a rule, phthisical individuals with an exhausted nervous system, with an overtaxed brain from excessive mental labor, or an all-absorbing occupation, yet who still retain considerable latent muscular power, will improve in the mountains, while those whom processes of tissue change require hastening or stimulating, they being in too feeble a condition to take active muscular exercise, should go to sea.

Sea air is better suited than mountain air to those who cannot bear sudden changes of temperature ; while the susceptibility to such changes is greatly lessened by mountain air.

During the past ten years my advice has been given to a large number of persons suffering from pulmonary disease. Under my direction pulmonary invalids have taken up their residence for a longer or shorter time in nearly every well-known health resort on this continent. I have sent but few phthisical invalids to other countries, for within our own boundaries may be found every diversity of climate. From these experiences, without entering into the details of individual cases, I have reached the following conclusions :

*First*—That we can expect permanent improvement in cases of developed phthisis only after a prolonged residence in the locality



which experience has proved to be best suited to each individual case. Permanent favorable results cannot be obtained from an annual change of climate.

*Second*—That cases of *tubercular* phthisis in any stage of the disease grow steadily and rapidly worse in all localities. Such cases do best in the quiet, well ventilated apartments of their own homes, where they can be surrounded by all those influences and circumstances which tend to make a feeble invalid comfortable.

*Third*—That cases of *fibrous* phthisis in every stage, whether the fibrous process commenced in the pleura or in the bronchial tubes, even after retraction of the chest walls, especially in the infra-clavicular region is well marked, and the bronchial dilatations which accompany it give the physical sign of extensive cavities, improve, and often reach a condition of comparative health, when they take up their residence in regions having very high altitude, such as are found in Colorado and in the Rocky Mountain range. The benefit which asthmatic and emphysematous invalids derive in these regions is most marked. I know of no locality where these classes of pulmonary invalids make such rapid and permanent improvement. Experience has led me to be very cautious in recommending these regions of high altitude to invalids with catarrhal phthisis. In the advanced stage of this form of phthisis, I have never seen good results from a residence in such regions, and it is quite doubtful whether any one in its first stage has received benefit. It is stated by some of the advocates of the Colorado climate, that by it advanced cases of phthisis are greatly benefitted, and often reach a condition of apparent recovery. In these favorable cases I would rather the exact nature of the diseased processes than the physical signs had been given, notwithstanding by some so much importance has been attached to the latter. My own experience leads me to believe that only cases of fibrous phthisis are benefitted in regions of very high elevation.

Unquestionably, the majority of cases of pulmonary phthisis are of the catarrhal variety, and it is in giving advice as to the climate and locality best suited to this class that the greatest experience and judgment is to be exercised by the medical adviser. One thing seems certain that after the stage of softening and excavation is reached by this class, no climate will long delay the fatal issue. It is during the stage of pulmonary consolidation, or during the period of enteblement which precedes consolidation, that we may expect permanent improvement and perhaps final recovery.

I have seen only a very limited number of cases of catarrhal phthisis permanently improved by long sea voyages or a residence in a warm climate. A large number in the early stage of this disease, going from a northern to a southern winter are temporarily improved: after the first apparently beneficial effects are passed, the degenerative inflammatory processes go on more rapidly than before. The invalids whom I have found to be most markedly benefitted by a sojourn during the winter months in a southern climate are those convalescing from some acute pulmonary affection, in whom the delayed convalescence raises the fear of possible phthisical development, and those

in whom acquired or hereditary phthisical tendencies exist, yet there may be no positive physical signs of disease of the lungs. The list of such cases is a long one, and the results obtained are most satisfactory. My favorite resorts for such cases are Aiken in South Carolina, Pilatka, Enterprise and Gainsville in Florida, and Thomasville in Georgia. My best results in the stage of consolidation of the catarrhal form of phthisis have been reached in those who have made a prolonged stay, varying from one year to three years in mountain regions with an elevation of from 1,500 to 2,000 feet. Of such regions the most positive and permanent beneficial results have been obtained in Ashville, N. C., and in the Adirondack region in this State.

I am led to believe that persons suffering from catarrhal phthisis do not do well at a higher elevation than 2,500 feet, and also that some regions with a much lower elevation afford all the necessary climatic conditions for this class of cases.

The mode of life which those suffering from phthisis should adopt is important. The general direction given is, "Live in the open air," but few of those who give or receive this advice appreciate its full meaning. My own personal experience, as well as my experience in regard to its effects upon others, leads me to believe that a camp life, or a tent life during the warm season in such localities as have already been indicated is of the greatest service in arresting and curing phthisis in those who are not enfeebled. If this kind of life is not practicable, or the invalid's condition renders it hazardous, then spending the day in the open air in pleasurable excursions should be encouraged even in the feeble.

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## HOSPITAL RECORDS.

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### MOUNT SINAI HOSPITAL, NEW YORK.

Reported by BENSON M. FELDMAN, M.D. House Surgeon.

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#### FRACTURE OF THE TIBIA AND FIBULA.—RUPTURE OF THE LIVER AND SPLEEN.—DEATH.

Thomas Ryan—æt. 10—U. S.—School-boy.

Was run over May 13th, about 4.30 P. M. by a heavy brick wagon, and shortly thereafter brought into the hospital suffering from pain in the back and inability to raise the left leg. He was very restless and anxiously inquired for his parents. Although rapidly stimulated he continued to grow very weak.

5.30 P. M.—Patient semi-comatose and groaning with pain, which he located in the right hypochondriac region. Stimulants by the mouth.

5.40 P. M.—Extremely weak. Resorted to hypodermic stimulation. Does not answer questions well. While sleeping he snores heavily and occasionally moans. When awakened he immediately returns to his former condition. Fails to retract the tongue when once protruded. Has not vomited since the accident.

5.50 P. M.—Temp. 98.6°. Pulse very feeble. Administered two

hypodermics of Meumann's Liquidum Ergotinum, M. iv each. Ord. ice cold applications to the abdomen.

5.58 *P. M.*—Hypodermic stimulation of camphor, acetic ether and brandy still kept up, pulse 156.

6 *P. M.*—Respiration (sighing) 20 per minute. Pulse 184, Gave a main hypodermic of Liq. Ergotin. Temp. 99.5°. Ord. the hot pack.

7.15 *P. M.*—Temp. 97°, Pulse 160, Resp. 17.

7.45 *P. M.*—Complete coma.

8. 20 *P. M.*—Temp. 98.6° Pulse 144, Resp. 22.

8.50 *P. M.*— " 99.2 " 160, " 21.

9.30 *P. M.*— " 101.2 " 160, " 21.

Stopped hot pack to body and resumed cold applications to the abdomen. Urine dribbles from the bladder without any expulsive efforts.

10 *P. M.*—Temp. 101.7° Pulse 170, Resp. 22.

11.15 *P. M.*— " 102 " 160, " 14.

12 *P. M.*— " 101.4° " imperceptible " 9 and very deep. Patient died about 12.30 A. M.

*Autopsy.*—No contusions on trunk except a scratch over crest of right ilium and a slight abrasion over lumbar vertebræ.

There was a lacerated wound on the back part of the right arm, which allowed a probe to pass underneath the skin a distance of 3½ inches in the direction of the elbow joint.

There was an oblique fracture of the left tibia and fibula, about four inches above the ankle joint.

The abdominal cavity was filled with very dark blood, and but a few clots. On the anterior surface of the right lobe of the liver was a laceration 2½ inches long: and another on the posterior surface confined to the lobus spigelii and very close to the transverse fissure, about 1 inch long. The right kidney was floating in the back part of the abdominal cavity, being completely torn from its attachments. On section it was found in a state of extreme congestion.

The spleen had a laceration large enough to admit an adult index finger and was situated near, as well as parallel to the hilus.

## ST. VINCENT'S HOSPITAL, NEW YORK.

Reported by J. J. ULLOA Y GIRALT, M.D. House Surgeon.

### SYMPHISE HEMIPLEGIA.

P. H.—Single—æet. 31—Ireland—admitted Nov. 17th, 77.

He says that on the evening of the 12th inst. before going to bed, he sat down to read the papers, as was his custom. About midnight he had the delusion that two men were in his room and had done him some harm. When morning came he was unable to either move or speak, and found his right side to be completely paralyzed. On admission five days afterward complete right hemiplegia was found. The face was distorted and speech hardly intelligible. Sensation was unimpaired. In trying to ascertain the cause of the hemiplegia we learned



the following history. Parents still living and enjoying good health. He has a sister who once suffered from an attack of paralysis quite similar to his own. He says that he has never had anything to do with lead, or paint of any kind. Has never had rheumatism and his heart and kidneys are perfectly healthy. Has never had a fall or in any way been injured about the head or back.

He gives no syphilitic history but says that he had an attack of gonorrhoea some time ago. On careful examination we found quite a number of the characteristic *copper colored spots*, and on inquiring as to their cause, he said that when very young he had ulcers in their place. He always enjoyed the best of health previous to his present trouble, since which he thinks he has lost some mental power.

The question naturally arose as to whether he had a urethral chancre instead of a gonorrhoea, or was he suffering from inherited syphilis. His having had the sores alluded to when very young and his sister suffering as he says, from the same kind of paralysis, seem to point to the troubles being inherited.

He was put upon potass. iodid, grs. x every four hours, and later, electricity was used every other day. Upon this treatment he improved very rapidly until May 1878, at which time he was discharged, having fully recovered his speech and the power in his right arm and leg.

[It may be stated in connection with this case that the idea of syphilitic hemiplegia is further borne out by the following facts (Van Buren & Keyes) viz., that in this affection.

1st.—The attack is usually quite sudden.

2nd.—There is seldom total loss of consciousness.

3rd.—The sensation of the affected side is rarely lost.

4th.—The patient is usually young (30—50 ys.)

5th.—The intelligence is always impaired.

H. H. K.]

## PERISCOPE.

### COLLABORATORS.

*Dermatology:*  
HENRY G. PIFFARD, M.D.  
*Diseases of the Nervous System:*  
EDWARD C. SEGUIN, M.D.  
*Diseases of Women and Children:*  
FRANK P. FOSTER, M.D.  
*General Surgery:*  
EDWARD J. BIRMINGHAM, M.D.

*Genito-Urinary Disease and Syphilis:*  
ROBERT W. TAYLOR, M.D.  
*Maternal Medicine and Therapeutics:*  
FREDERICK A. LYONS, M.D.  
*Ophthalmology and Otology:*  
SAMUEL B. ST. JOHN, M.D.  
*Orthopedic Surgery:*  
NEWTON M. SHAFFER, M.D.  
*Practical Medicine:*  
E. DARWIN HUDSON, JR., M.D.

AN ACU-OTOSCOPE. BY T. F. RUMBOLD, M.D.—*Arch. of Ophthalm. & Otol.*

Dr. Rumbold of St. Louis has invented an instrument which he calls an "acu-otoscope" having the size and shape of a conical ear speculum with the smaller end removed. The large opening is closed by a piece of ordinary glass. To the side is fastened a metal about 5 inches long which opens into the lumen of the speculum and which serves both as a handle by which the patient can hold it and as a means of conveying sound from the patient's ear to the physician's. It is

used as follows. The small end of the speculum is introduced into the opening of a Gruber's ear speculum which has been placed in the patient's ear. The lateral tube is connected by means of a short flexible tube with a Cammann's stethoscope of which the funnel shaped end has been removed. While the patient holds the instrument in position the physician can at the same time see the changes of the membrana tympani and hear the sound produced by a stream of air forced into the middle ear through the Eustachian tube. S. B. ST. J.

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FIBROMA OF AURICLE, BY DR. H. KNAPP. *Arch. fur A. and O.* V

During the last 6 years Knapp has seen 7 or 8 cases of fibroma of the ear-lobe arising at the point where the lobe was perforated for ear rings and apparently due to the irritation set up. It appears that they are more common in the negro race, perhaps because the earrings worn by negroes are more often of a cheap and irritating metal. They might possibly be mistaken for atheromatous cysts but the latter are smoother and usually fluctuate. The growth is slow and painless, they are seldom larger than a hazel-nut, though one of the cases was as large as a small hen-egg. The treatment consists in removal by the knife, and they do not, as a rule, return. S. B. ST. J.

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## NEWS ITEMS AND NOTES.

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**Legalized Prostitution and National Depopulation.**—In a recent discussion before the Anthropological Society of Paris, it was shown that in Belgium, where the system of legalized prostitution is strictly enforced, marriage is becoming more and more rare. That prostitutes, as a rule, are barren. That concubines usually abort about the second month, from artificial means, and that the marriage relationship, therefore, is the only fruitful one; consequently that the countries in which the system of legalization has been adopted, are becoming rapidly depopulated. These statements, culled from an editorial in the *American Bi-Weekly*, are followed by the reflections:

"These facts seem at first to constitute only social problems, but it is manifest to the careful thinker that they underlie the very basis of national prosperity and growth; for even if scientists agree or disagree as to the advisability or necessity of legalizing prostitution with the view of checking disease, both immediate and prospective, there is, far beyond this question, the ultimate one of the effect of prostitution in the depopulation and destruction of a nation."—*Detroit Lancet*.

**Conviction of an Abortionist.**—Mrs. Dr. Hodgdon, of San Francisco, has been found guilty of murder in producing an abortion upon a Mrs. Downes. Some women enter the medical profession ostensibly to pursue it legitimately, but more particularly to ply the nefarious calling of abortionists.

**Treatment of Acne Rosacea.**—Nurmann recommends a solution of

one pint of carbolic acid in three or four parts alcohol, as an application to the diffusely reddened patches. It is not, however, of much service when there is infiltration or vascular ectasis.

**A Novel Literary Distinction.**—According to Lieutenant de Corbigny, literary men in Annam are known by the dimensions of their nails, which sometimes attain a length of twenty-five centimetres. The nail of one finger, however, is cut short, to enable its possessor to scratch himself—a laborious undertaking in all classes of that country.

**The Beginnings of Medical Men.**—Sir James Paget has shown that out of 1,000 students 23 had achieved distinguished success, 69 had achieved what might be called considerable success, and 507 had achieved fair success. That he reckoned to be a larger proportion than any other of the higher professions could boast. The opinion of Sir James Paget in reference to the medical profession was that as a man began so he continued, and so he ended.

**William Campbell, the Scottish Giant,** died lately at Newcastle-on-Tyne, at the age of 26. Campbell had been exhibiting in London at the Egyptian Hall, and returned to Newcastle, intending to stay only a few days. He stood 6 feet 3 inches, and weighed 728 pounds, measured 96 inches round the shoulders, 76 round the breast, 47 round the thigh, and 35 round the calf of the leg. He was the biggest man in the United Kingdom, and, so far as report goes, in the world.

**Soul Medicine.**—In allopathy the soul is nowhere; in homœopathy the state of the soul and mind is a *sine qua non*.

“Allopathy has no means of affecting the soul or mind, except those of a moral kind; whereas homœopathic medicines act upon the spirit or soul of man, and through it, and by means of it, and with a certainty which is as remarkable as it is true.

“By way of illustrating the power of homœopathic medicines over the mind and its affections, I shall give the following example. A favorite cat of my own had kittens. All were drowned but two; then one was given away, and ultimately the remaining one was given to a friend. The mother of the kittens became *inconsolable*, and went all over the house mourning her loss in unmistakable *tones of grief*, for five days and nights, ‘making night hideous’ with her cries. One globule of *ignatia* cured her in half an hour, as she never cried again.”—*Skinner's Diseases of Women*, p. 27; Porter & Coates, Philadelphia.

**The Microphone in Medicine.**—A few weeks since Sir Henry Thompson demonstrated the value of the microphone—the recent invention of Professor Hughes—for discovering the existence of stone in the bladder, however small the particle might be, in operating on a patient, in the presence of Mr. Erichsen, Dr. Vandell of the United States, Mr. M. B. Hill, Mr. Clover, Mr. B. Browne, and others. By an application of the same method the recognition of a bullet or other foreign body, or of diseased bone at the bottom of a deep wound, the microphone may be equally valuable.



**The Telephone in Medicine and Surgery.**—At the suggestion of Dr. Hunter McGuire, of Richmond, Va., Dr. Hugh M. Taylor, of the same city, has demonstrated the use of the telephone in detecting stone in the bladder and other foreign substances in the human body. In striking the stone the sound is distinctly heard, and thus a very valuable additional method of diagnosis has been found.

**Honors**—Latayette College has conferred the honorary degree of A.M., on Drs. H. C. Wood, Jr., and A. K. Mirrick, of Philadelphia, J. A. Thacker, of Cincinnati, and Elisha Harris, of New York. Union College has conferred the honorary degree of Ph.D., on Chas. A. Seelye, of New York, and Thomas A. Edison, of Menlo Park, N. J.

### Errata:

PHILA., 1416 Spruce St.,  
JUNE 16, 1878.

*To the Editors of Hospital Gazette and Archives of Clinical Surgery*

GENTLEMEN:—In the number of your Journal issued May 23th, 1878, which has just come to my notice, I find a report of a recent clinical lecture of mine upon Elephantiasis Arabum and Erythema, Nodosum delivered at the University of Pennsylvania, in which there occurs two misstatements on the part of the reporter which I desire to correct. In speaking of the case of Elephantiasis Arabum of Dr. Morton, in which by way of treatment exsection of a portion of the sciatic nerve was performed, I am quoted as having said that the disease had been cured. I stated that the case had been decidedly benefited by the operation.

In considering the nomenclature of erythema nodosum I am given credit for having proposed the term "dermatitis contusiformis" for this disease. The name was first suggested by Hebra, some years since, to whom the honor belongs.

Yours truly,  
LOUIS A. DIERING.

**The Metric System in a Nut-Shell.**—"Universality, Uniformity, Precision, Significance, Brevity, and Completeness. A system of weights and measures born of philosophy rather than of chance."—*Charles Sumner*. By Edward Wigglesworth, M.D.

"Washington, May 3.—Surgeon-General Woodworth, of the U. S. Marine Hosp. Service, has issued a circular, with the approval of Secretary Sherman, requiring medical officers of the Marine Hosp. Service to make use hereafter for all official, medical, and pharmaceutical purposes, of the Metric System of Weights and Measures, which have already, under the act of July 28, 1866, been adopted by this service for the purveying of medical supplies."—*Boston Daily Advertiser*, May 4, 1878.

The Metric System is already *legalized* in both America and England. The only question now is, which of the two, the most progressive or the most conservative nation on earth, shall be the first to definitely and finally adopt it as an *exclusive* system? [N.B.—England was 400 years behind the continent in adopting our present arithmetic.] Russia has already taken the preliminary steps towards

its final adoption. The rest of the civilized world long since made the system obligatory, in whole or in part, except that, in Sweden alone, its obligatory use is to date from a period in the future, 1889.

Now, what is this Metric System? Metric is from the Greek word "metron," a measure, spelled with Epsilon, e short, and, therefore, pronounced mét-ric.

The Meter [measure] is, practically, a fixed quantity, namely, the ten millionth part of the earth's quadrant from the Equator to the North Pole. With the Meter everything can be *measured*, for it is itself the unit of length; a cube, the edge of which is the tenth of a meter, is the unit of capacity [Liter], and the weight of of a cube of rain water, at its extreme contraction, the edge of which cube is a hundredth of a Meter, is the unit of weight [Gram].

It is the Gram alone which concerns physicians, for, in the Metric System, *everything is best prescribed and dispensed by weight alone*; numbers upon a prescription paper being regarded by the pharmacist as representing Grams, unless the contrary is expressly stated. The fractions are always decimal.

The table is easily learned. It consists of six words, as prefixes, whether we deal with Grams, Liters or Meters. These are: Deci for tenth, Centi for hundredth, Milli for thousandth, Dekka for ten, Hekto for hundred, Kilo for thousand. Having these few words, the terms of Troy, Avoirdupois, and Apothecaries weight, and of liquid measure, may be relegated to the limbo of pounds sterling, shillings, fourpence-halfpennies, and farthings. As we say dime, cent, mill, so we say decigram, centigram, milligram. These prefixes are Latin, and *diminish* the value. Dekka, hekto, and kilo are Greek, and *increase* the value. The mnemoniac is G I L D, *i. e.*, Greek Increases, Latin Decreases. Dekka occurs in the English word decade; hekto in hectacomb; kilo in chiliad.

"Being accustomed to the words mill cent, and dime, we shall find the words 'milligram,' 'centigram,' and 'decigram' quite as simple and easy to pronounce as our words 'pennyweight-troy,' 'hundredweight-avoirdupois,' 'scruple-apothecaries,' etc., notwithstanding the assertion to the contrary of those who grieve to give up the 'short and sharp Anglo-Saxon words used in our present *familiar* old tables of weights and measures.'"

Practically, moreover, for physicians, the whole system is reduced to grams and centigrams, just as, in money, to dollars and cents. On the right side of the prescription paper draw a perpendicular line from top to bottom. This decimal *line* takes the place of all the decimal *points*, and abviates the possibility of mistakes. This is the way dollars and cents are separated on business papers. Additional security is gained by writing the decimal fraction [centigrams] of half size and raised above the line [of grams], since it represents a numerator of which the denominator, 100 is omitted. To make assurance doubly sure. "Grams" may be written over the integer-column of figures, and, if wished, the word "decimals" over the decimal column.

Now, what is a Gram? or rather, the values, metrically expressed, of our present awkward weights?

	Prussian.	Practical.	Precise
Grain I =	0.06	0.06	0.065
℥ I =	1.25	1.25	1.29
℥ I =	3.75	4.0	3.89
℥ I =	30.0	32.0	31.1

The "practical" table alone concerns us. The "Prussian" [by order of the Prussian Ministry, Aug. 29, 1867] is given merely to show that our table is even nearer the actual truth than one which has been proved by actual experience to answer every purpose. The values of the grain and scruple are a little too small. As they are used for powerful drugs, this is an error in the right direction. The values of the drachm and ounce are a trifle too large, but the proportions and therefore the ratio of drug to vehicle are preserved.

A prescription written metrically is always proportionate, and whether the pharmacist uses pennyweights, pounds, or tons; gills, pecks, or chaldrons; pints, gallons, or hogsheads, the ratios are preserved, and a teaspoon dose contains the same amount of medicine.

As regards administration, a teaspoon represents five grams, a tablespoon twenty grams; for a teaspoon holds one and one-third fluid drachms, a tablespoon a trifle more than four times as much.

In the Metric System *everything is weighed* thus obviating the difficulties of evaporation, refraction and adhesion, and obtaining more conveniently, more exact results. In our old "systemless system" some fluids were measured. How shall we obtain with weights, the desired bulks of fluids with varying weights? Must we learn the specific gravities of all fluids?

*Not at all!*

1. Fixed oils, honey, liquid acids and chloroform, must at present be prescribed in our old weights, not measures, according to the pharmacopœia. Here change old weights to metric ones.

2. Not enough chloroform or ether is included in any one prescription to admit of harm arising from the amount contained in a single dose, even were their weights regarded as the same with that of water. Moreover, it is not difficult to remember that ether weighs seven-tenths as much as water, chloroform twice as much as ether.

3. There remain infusions and tinctures, glycerines and syrups. These four are used in bulk as doses, or as solvents or vehicles. The former two may be regarded as identical in weight with water; the latter two as one-third heavier, and when prescribing these we need merely write, by weight, for four-thirds as much as we should write for were we prescribing water, and we obtain an equal bulk. The teaspoon or tablespoon dose will then contain the desired amount of the drugs employed.

Or, simplest of all, we can make any mixture up to any desired bulk by merely directing the druggist to use enough of the vehicle to bring the whole mixture up to the requisite weight for that bulk.

The Metric Bureau, 32 Hawley street, Boston, will furnish metric prescription blanks to order, to druggists or physicians at four-fifths printer's rates, or any blank can be made sufficiently metric by a perpendicular line at the right, headed *grams*.



# THE HOSPITAL GAZETTE

AND

## ARCHIVES OF CLINICAL SURGERY.

A WEEKLY JOURNAL OF MEDICINE, SURGERY AND THE COLLATERAL SCIENCES.

EDITED BY

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H. H. KANE, M.D., Associate Editor.

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[The editors hold themselves in no way responsible for the views expressed by contributors.]

### LECTURES.

#### CLINICAL LECTURE UPON THE TREATMENT OF CHRONIC DISEASE OF THE NASAL PASSAGES, EUSTACHIAN TUBE, AND MIDDLE EAR.

BY

GEORGE STRAWBRIDGE, M.D..

Professor of Clinical Otology, in the University of Pennsylvania Medical School, Phila.

[REPRODUCED FROM THE HOSPITAL GAZETTE.]

As far as therapeutical remedies for the treatment of these diseases go, they are very few in number. Among those which are sometimes employed may be named the muriate of ammonia and iodine vapor. The latter I have given up entirely as it has never had the least beneficial effect in my hands. If the Eustachian tube and middle ear are filled with mucus it must of course be at once removed either by means of the catheter or by Politzer's bag. Of the two, I prefer the bag. The introduction of the catheter must always of necessity be a great source of irritation to the patient and its effect is no better than that which may be had from the use of the bag.

How then are we to set about the removal of a chronic catarrhal condition of the above passages? If the catarrh began in the pharynx it will be sufficient to treat it there, and when it leaves the pharynx it will also leave the Eustachian tube and middle ear. There will always, however, be a few cases in which the condition will continue in the ear after the disease has been entirely expelled from the pharynx. In such cases I am accustomed to make use of a solution of zinc. This of course must be applied through the catheter, for Politzer's bag will not at all answer the purpose. I am in the habit of first introducing the catheter and dropping into it three or four drops of a solution of zinc, (3-5 gr. to the f.  $\frac{5}{8}$  j.) then by means of the bag I force the zinc through the cavity of the catheter into the ear. In a large number of cases such as the above, I have also treated the disease by solutions of the nitrate of silver applied by means of a post-nasal syringe introduced behind the soft palate.

In other old cases of chronic catarrh of the middle ear where the secretions have ceased and the function of the mucous membrane has become depressed it is often of great benefit to stimulate by some means the membrane to resecretion. In such instances there is commonly a marked tendency to peeling of the skin, and slow atrophic degeneration. A number of vapors have been recommended as local applications here. Dr. D. B. St. J. Roosa, of New York, places great confidence in the use of steam for the cure of these conditions. The vapor to be thrown through the catheter into the Eustachian tube. He claims for this agent a double effect upon the parts, first stimulating and then relaxing. The method of application is very easy. It is of course necessary to use a gum instead of a metal catheter. The steam is generated in a boiler and conveyed to the catheter by a connecting gum pipe.

Four years ago I used steam very largely, but of late I have given its use up entirely, and for two most excellent reasons. 1 Because I found that it did absolutely no good in my hands and, 2, because I discovered something far more useful and beneficial to my patients. After I gave up the application of steam I used for a long time the vapor of the muriate of ammonia. This vapor was generated in an apparatus made particularly for the purpose and was conveyed to the catheter through tubing. After making trial of this vapor for a year I gave it up likewise.

Now, in chronic thickening of the middle ear I use ether, my method of applying it is by means of Politzer's bag. I drop 8-10 gts. of the ether into the bag. The patient takes some water in his mouth and holds it there. A nose piece is put in his nose and just as he is swallowing the water I squeeze the ether through the nose-piece into the passages. I have had a very large experience in the use of ether in these cases. I hold that ether is the very best application that has ever been tried, and I offer as my proof the following reasons. (1) Ether is very highly stimulating. (2) It has a powerful anodyne effect, particularly in cases where tinnitus aurium is a symptom. (3) It is an absolutely harmless remedy. I have never had any bad effects from its use. In one or two cases there was a momentary nausea or giddiness, but these symptoms at once passed away. I have often used as much as 30-40 gts. of the ether at one time. Drs. Politzer and Grüber, of Germany, recommend a mixture of one part of chloroform and two parts of ether as a topical remedy, but I cannot divest my mind of the idea of danger in such a use of chloroform, and what is more, the ether alone, I think, does just as much good. It is usually thought that Dr. Toynbee, of London, the great authority on diseases of the ear killed himself by the introduction of chloroform into the Eustachian tube and middle ear. At any rate he was found dead in his laboratory with his instruments and open bottle of chloroform lying beside him at a time when he was known to be experimenting in the above mentioned way with the drug.

You will very often be asked for your opinion with regard to the use of electricity in obstinate cases of the above diseases. Many years ago I sent abroad and purchased a seven hundred dollar elec-

tric battery—one of the very best to be procured in the European markets. I tried my battery upon my patients for four or five years and I do not think I ever saw one case which was in the least benefited by the electric treatment. With regard to the proper way of applying the electric current it may either be applied with one pole introduced through the catheter into the Eustachian tube and the other pole at the outer ear, or, if this way be not convenient, one pole may be held in the hand and the other introduced into the outer ear.

One or two gentlemen have made use of bougies where there was narrowing of the calibre of the parts, thinking thus to dilate the stricture. In no recorded case has any benefit been derived from this treatment.

With regard to constitutional measures. In those cases to which I have just been directing your attention there is no regular constitutional treatment necessary. Where, however, the disease has been hereditary and has run through many generations the case will only go on from bad to worse unless something be done to bring up the general tone. In this connection I have used two or three remedies with decided advantage. If there be any taint of strumous diathesis I order the bichloride of mercury internally for a long time, and in small doses. A number of high authorities are agreed upon the value of the bichloride of mercury.

The following is a good form of administration.

R.

Hydrarg. chlo. corrosivi.

gr.  $\frac{1}{60}$

Elix. cinchonæ.

f.  $\frac{3}{4}$  ss.

M. S. Two or three times a day after meals.

Iron is also an excellent drug in this connection. A small amount of strychnia may, with advantage, be joined with the iron in pill form. In old people where there is very decided lessening of the secretions I give ten grain doses of the muriate of ammonia thrice daily. In ordering this drug I leave directions to have it dissolved in f.  $\frac{3}{4}$  j. of cinch. elixir and this again suspended in half a pint of acid water. Muriate of ammonia, like iodide of potassium, should never be admitted to the stomach unless in a highly diluted state.

I spoke to you early in the hour of the value of ether in cases in which tinnitus aurium is a prominent symptom. Here are two cases whose history I wish to relate to you. This young man has had the tinnitus for seven years. The noise goes on all the time. It worries him horribly at night. In the day time he seems to be constantly followed by some one who wishes to speak with him. His mind is not as yet affected. The noise is like the sound of water falling, and leaves stirring. In this other case the symptom has been prominent for sixteen months. The noise is like escaping steam. The trouble is diminished by the use of a light diet. This disease is very common in every day practice. The agony it entails is often altogether intolerable. Quite recently a cultivated and wealthy gentleman in New York was driven by it to commit suicide. Life was no longer bearable for him.

Here is a patient the drums of whose ears are perfectly white. I



will force 8 gts. of ether into the passages and now let me show you the result. The drum is all of a bright pink color. The man does not feel any the worse for the application.

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## ORIGINAL ARTICLES.

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### A SIMPLE METHOD OF REDUCING PROLAPSUS OF THE RECTUM.

J. C. DAVIS, M.D.,

One of the Visiting Surgeons of the North-Eastern Dispensary.

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If the patient be a child, place it on its back, flex the thighs and legs at a right angle to the body; let the nurse or an assistant hold them in this position, wipe the mucus or other discharge from the prolapsed part; then take an old hdk'f, piece of soft linen or cotton rag, place it loosely over the index finger and introduce it slowly into the rectum: the mucous membrane will adhere to the rag, and the part last descending will be the first to repass the sphincter. Carry the finger the full length up the rectum; then with two fingers of the left hand, one on each side, sustain the gut while withdrawing the finger. To remove the rag, keep up the counter-pressure with the fingers of the left hand, and pull gently, first on one side, then on the other of the hdk'f or rag, and in this way remove it from the rectum. If the patient be other than a child, place him in the "Sim's position" and the same procedure will accomplish the object in view.

The subsequent treatment, surgical or otherwise, will depend upon the causes which have produced the disorder.

In behalf of this method, I would say, that it has proved eminently successful in my hands for more than a score of years. Its claims are simplicity, facility and rationality; there is no squeezing or bruising of the parts, hence little or no pain, unless the gut be inflamed. By the old method the manipulations of the surgeon cause the sphincter to contract sometimes forcibly, thereby making the reduction of the prolapsed gut more difficult.

By the foregoing method, the surgeon *unties* the knot: by the old, he forces it through a more or less tightly constricted sphincter.

Let those who may think this "*gratis dictum*," try the plan.

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### A CASE OF VESICO-INTESTINAL FISTULA.

THOS. M. FLANNER, M.D., SPRINGFIELD, MO.

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Jasper Fulbright, colored, aet. 26, tall, slender, and of previous good health, though never very robust, has been under my care occasionally for eighteen months past. His chief complaint was of a

cough, which conjoined with continuous wasting, emaciation and a known hereditary predisposition to tuberculosis, established my diagnosis as phthisis pulmonalis. I never made a careful physical exploration of his chest, but enough from time to time to satisfy me that he had tubercular deposition, and subsequently a small vomica in the apex of the left lung. For this he had general treatment, cod liver oil, hypophosphites tonics, anodynes, etc., with apparently the most happy results. His cough almost entirely ceased, he gained fifteen to twenty pounds of flesh, and for several months satisfactorily discharged the duties of porter in a large hotel. About midsummer, 1877, he applied to me complaining of an uneasiness and illy defined pain in his abdomen, attended as he said oftentimes with bloating of his stomach, occasional vomiting, sometimes constipation, at others diarrhoea. He was weak, losing flesh, had variable appetite, and suffered more or less with his bowels all the time. His abdomen was quite sensitive to manipulation and through the emaciated abdominal walls, enlarged mesenteric glands could be distinctly felt. He said he had no cough, and in fact I scarcely ever heard him cough from that time to that of his death. In short I now had a well defined case of tabes mesenterica, with an apparent transfer of the deposit from the lungs to the abdominal glands. I need not detail the progress of the case or the treatment, as they were in no wise peculiar up to the occurrence of the lesion which is the only point of interest connected with it. He kept around, but failing, until about the 5th of December, 1877, from which time he was confined to the house. After my visit on the morning of January 9th, 1878, I was asked to see him in the evening again, as he "had some trouble with his water." He told me that his water was thick and smelt bad, that he wanted to void it frequently, and after straining greatly passed only a little, and that dark and turbid. He had been taking opiates freely, I thought nothing of it. During my visit, however, he got out of his bed and taking the urinal, went into a corner of the room with his back to me. I noticed that he strained to pass urine, and in a moment I concluded from several explosive reports, and an intensely fecal odor that as the result of his muscular efforts the sphincter ani had lost its grip, and that his drawers would require removal and ablution. He soon however, without the use of paper, returned to the bed, and as he was excessively particular about himself, this surprised me, and I asked him if I should not call some one to cleanse him. He said he needed nothing of the kind, but as the olfactory evidence was getting more and more overwhelming, I insisted that he was certainly mistaken, when he rather angrily said that was what he was telling me about, and that it was his water I smelt. I asked where all that wind came from and he said from his water. Surprised but doubting, I examined the vessel and found therein an ounce or two of a semi-fluid matter decidedly fecal. I inquired what was in the vessel before he used it, and he replied nothing. I had it emptied and washed. Within fifteen or twenty minutes he desired to use it again, and I had him stand directly before me. After straining severely for a minute, perhaps, tears issued from the

meatus, before my eyes, and within a foot of my nose, a dripping trickling mass of feces and urine commingled, with an odor that impressed my olfactories so sensibly that notwithstanding the absorbing interest of the performance, caused me to increase the distance between myself and this surprising phenomenon. He continued this straining until he was utterly exhausted and was compelled to lie down, with a vesical tenesmus, that he declared insufferable. During his attempted micturition, the stream would be frequently interrupted, and again resumed with the discharge of a single lump or several combined, of consistent fecal matter, mingled with air, the air being discharged more than once with an explosion nearly or quite equal in volume to that ordinarily discharged per anum. I gave him a big dose of sulphate of morphia and proceeded to reconnoitre. On examining the matter discharged, its fecal nature was positive. It contained quite a number of blackberry seeds, the preserved fruit of which he had eaten during the day. Of course there was but one explanation of the thing; inflammation, agglutination and subsequent ulceration involving the vesical walls, and some portion of the intestinal track. As to treatment nothing need be said about that for which nothing could be done. He had opiates ad libitum, and that covers the case. He was seen by Drs. Means, Tefft, Barrett, Clements and Ross, and in the presence of all of them, on different occasions, he passed fecal matter and undigested substances (namely, blackberry seeds, of which fruit he was fond and eat daily per urethram. Of course I expected constantly the occurrence of peritonitis or other grave concomitant, but it never came. There was no increased tenderness or pain, no tympanites or distension, and in fact no new symptom after the occurrence of this feature. He insisted on taking a dose of castor oil, and did so. His bowels moved in response thereto, and at the time of passage, there was increased discharge of feces per urethram. He had several injections per rectum, to which the lower bowel responded, with discharge at same time of the water from the bladder. He lived until January 26th, 17 days after the urethral fecal discharge and died of exhaustion and inanition.

Post mortem.—8 hours after death. Present, beside myself, Drs. Means, Barrett, Tefft, Clements and Ross. Rigor mortis pretty well established, *subject* very much emaciated. A crucial incision was made through the abdominal walls, which, being raised, brought the omentum into view, entirely devoid of adipose tissue, thin and transparent except where studded with tubercular deposits varying in size from a pin head to a small pea. The omentum was firmly bound to intestines, and they were so agglutinated that it was impossible to unravel them. A prolonged attempt was made to trace the small intestine, but under the circumstances by which we were surrounded it could not be accomplished satisfactorily. The fundus of the bladder was wholly broken down by ulceration, and this ulceration involved a large part of the ileum, the ascending and descending colon. In fact we could find no trace of the ileo-coecal junction. The walls of the bladder [what remained of them] were thickened. Con-



tracted and lost in the general cavity involved in the ulceration. This cavity would have contained a good sized cocoanut, and so involved all the points that it was impossible to make out any special lesion of individual parts of the intestine. The cavity communicated with the urethra and the rectum as shown by passage of sound, and introduction of finger. This cavity contained 3 or 4 ounces of mixed urine, fecal matter and disintegrated tissue. The peritoneum was everywhere pale, thin, and the glands, generally, the seat of the tubercular deposit. Liver small but apparently healthy. Kidneys also apparently free from deposit. The cavity however seemed to contain within it a considerable part of their volume; could find no trace of either ureter. Lungs not examined.

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## HOSPITAL RECORDS.

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### LONG ISLAND COLLEGE HOSPITAL, BROOKLYN, N. Y.

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Reported by SAM'L MEAD, M.D., House Physician.

ACUTE NEPHRITIS.—CHRONIC DIFFUSE NEPHRITIS.—SERVICE OF DR.

E. SEAMAN BUNKER.

Mrs. Walker.—M.—Aet. 30.—U. S.—Housework.

Admitted March 22, '77.

*Family History.*—Grandfather on maternal side died of consumption. Father died of *dropsy*, probably renal.

*Past History.*—Says she has always been a healthy woman up to the present attack. Denies all venereal in her husband and self. She has one strong healthy child, and is now pregnant. She was never troubled with dropsy of any part of the body up to five weeks ago. Her eyesight is as good as ever, as also her hearing. Has had no "water-brash" or other gastric troubles. Up to four weeks ago passed water in about normal amount. Never had to rise in the night to micturate. Bowels habitually constipated. Never had scarlatina, measles, or rheumatism. Became pregnant about nine months ago, and considered herself going on very nicely up to five weeks ago when she had a decided chill and some fever. Thinks she "caught cold." Did not notice any marked change in the urine at the time. A few days after she noticed that her feet and ankles began to swell. The œdema rapidly extended to the legs, abdomen, face, hands and arms. She now found herself very "short of breath."

*On admission.*—Her legs, feet, arms, face, abdomen and labia were markedly œdematous. The skin generally had a doughy, sodden look. There was some hydro-peritoneum and a little hydro-thorax. Passes less urine than usual.

*March 24, '77.*—Four oz. sample of her urine examined with the following result:

*Color*—Dirty yellow.

*Odor*—Organic.

*Sediment*—White and heavy.

*Specific Gravity*—1.020

*Reaction*—Acid.

*Amount* in 24 hrs., 40 oz.

## MICROSCOPICAL EXAMINATION.

Large, small and medium-sized *granular* and *granular-epithelial casts* (quantity). Large, small and medium-sized *hyaline* and *granular-hyaline casts* a number, *blood casts* a few, *fatty epithelio-hyaline casts* a few, *renal epithelium* (quantity), *pelvic* and *vesical epithelium* (a little), *blood globules* a number, *free nuclei fatty particles* and *granular debris* (quantity), *urate of soda* (few crystals).

## CHEMICAL ANALYSIS.

*Albumen*, 50%.

*Urea*, 5-8 gr. to the  $\bar{5}$  j. 200 grs. in 24 hrs.

*Phosphoric acid*, 4-7 gr. to the  $\bar{5}$  j. (22¾ grs. in 24 hrs.)

*Chlorides* in excess.

H. H. KANE.

This A. M. she was put upon 10 grain doses of pulv. jalap co., and given a soap and water enema.

*March 25, '77.*—Bowels are kept well open. (Edema slightly improved.

*March 26, '77.*—Doing well. No headache. No dizziness or vomiting. Four oz. sample of her urine, which is passed in good quantity, examined.

*Color*—Dirty yellow.

*Specific gravity*—1.014.

*Odor*—Organic.

*Reaction*—Sl. acid.

*Sediment*—White and very heavy.

*Amount* in 24 hrs. 50 oz.

## MICROSCOPICAL EXAMINATION.

Quantity of *granular* and *fatty casts* of all sizes. Increasing number of *granular-epithelial casts*. *Fatty* and *granular renal cells* (a number, *blood globules* diminishing, *hyaline* and light *granular casts* (increasing).

## CHEMICAL ANALYSIS.

*Albumen*, 50%.

*Urea*, about the same.

*Carbonates*, 1 in excess

*Chlorides*, 1

KANE.

*March 27.*—At 2 A. M. had severe chills. Pulse (7 A. M.) 120. Temp. 104°. Had very severe pain in the calf of the left leg. Bowels moved freely. Was given 10 grains of quinine at once followed by 5 grains of same every two hours.

3.30 P. M.—Labor commenced. Presentation vertex. Position O. L. A.

4 P. M.—Delivered of healthy, well nourished male child, without any trouble. But little blood lost. Ord. brandy, 3 j q. ½ hour, and quinine sulph., grs. 5, q. iij hor.

6 P. M.—Mother and child doing well.

*March 28.*—Doing well. Quinine grs. 5, q. 4 hor. Brandy, 3 j q. 2 hor. Four oz. sample of urine examined. Sanious from admixture of lochial discharge.

*Color*—Reddish yellow.*Specific gravity*—1.020.*Odor*—Organic.*Reaction*—Alk. fix'd & vol.*Sediment*—Reddish.*Amount* in 24 hours ?

## MICROSCOPICAL EXAMINATION.

Very few small and medium-sized *hyaline* and *fatty-hyaline casts*.  
*Renal cells* granular and fatty few, *blood globules* (quantity), crystals  
 of *ammonio-magnesian phosphate* (quantity), *amorphous phosphates*  
 (quantity), *pus corpuscles* (a number).

## CHEMICAL ANALYSIS.

*Albumen*, 20 %.*Urea*, 1  $\frac{1}{8}$  grs. to  $\frac{5}{8}$ .*Carbonates*—proportional excess.

KANE.

Examined placenta and found it abnormally fatty.

*Mar.* 29.—Doing well. Quinine and Brandy continued. Four  $\frac{3}{4}$   
 sample of urine examined with following result.

*Color*—Normal.*Specific gravity*, 1.013*Odor*—Normal.*Reaction* acid.*Sediment* *Light and Slight**Amt.* in 24 hours 60 oz.

## MICROSCOPICAL EXAMINATION.

*Renal epithelium*, fatty and granular (quantity) *No Casts*, *Organic*  
*débris* (considerable) *Vesical Epithelium* (considerable.)

## CHEMICAL ANALYSIS.

*Albumen*, 8  $\frac{1}{3}$  %.*Urea*, 1  $\frac{3}{10}$  grs. to the  $\frac{5}{8}$ . 624 grs. in 24 hours) KANE.

Very little oedema. Feeling very well. Nursing the child. Bowels  
 opened with oil.

*Mar.* 30. Four oz. sample of urine examined with following result.

*Color*—Normal.*Specific gravity*, 1.013*Odor*—Normal.*Reaction* acid*Sediment*—Slight.*Amt.* 24 hours.

## MICROSCOPICAL EXAMINATION.

*Few granular Renal Cells*, *Organic débris* (considerable) *No Casts*.

## CHEMICAL ANALYSIS.

*Albumen*, 8  $\frac{1}{3}$  %.

*April* 3rd, Urine by catheter, as follows :

*Color*—Clear Yellow.*Specific gravity*, 1.017.*Odor*—None.*Reaction*, acid.*Sediment*—Light and Mucousy.*Amt.* 24 hours ?

## MICROSCOPICAL EXAMINATION.

*Hyaline* and *Light Granular Casts* (quantity) *Fatty Casts* (few)  
*Renal Cells*, fatty and granular few.

## CHEMICAL ANALYSIS.

*Albumen* 25 %.

Considerable oedema. Complains of headache and dizziness. Has  
 burning pains in palms of hand and soles of feet.



*April 6th.*—Much headache and pain in lumbar region, ord, cups to loins, urine the same, save an increase in fatty casts and albumen, 34 %.

Being allowed to go out on a pass she failed to return. All efforts to find her, were futile, as she had given a fictitious house number on entering the hospital.

*Aug. 10th.*—Met by accident on the street, and followed home. A sample of her urine was obtained and was as follows ;

*Color*—Pale Straw.

*Specific gravity* 1.010.

*Odor*—Organic.

*Reaction*, acid.

*Sediment*—White and heavy. *Am't* 24 hr's about one pint (she says.)

#### MICROSCOPICAL EXAMINATION.

Small and medium sized *Hyaline*, *Granular* (light and dark) *Epithelio-Hyaline*, *Fatty* and *Fatty-Hyaline Casts* quantity *Free Fat*, and *Fatty* and *Granular Renal Epithelium* considerable *Free Nuclei* and *Organic debris*.

#### CHEMICAL ANALYSIS.

*Albumen* 25 %.

*Urea* 9-10 grs. to the 3 (113 3-5 grs. in 24 hr's) supposing her statement as to am't. of urine to be correct.

Considerable œdema of limbs and some of hands and face. Has almost constant nausea, dizziness and the old burning pain in palms of hands and soles of feet. Is still nursing child, which however, looks thin and sallow.

(There are some points of great interest in this case, and they may be summed up briefly as follows :

1st. The occurrence of acute nephritis due to exposure to cold in the last month of pregnancy, and preceded by distinct chills.

2nd. The absence of all convulsive troubles.

3rd. The fatty condition of the placenta.

4th. The rapid improvement immediately after delivery and the gradual increase of the disease, running, as subsequent examination and the symptoms proved, into the "*large white kidney*," (chronic diffuse nephritis.)

5th. The fact that the child took the breast well and thrived on it for a time, suffering subsequently, however.

6th. The high temperature on the morning of delivery, and the question whether the large doses of quinine had any hand in producing so rapid a labor.

7th. The fair condition of the woman when last seen, notwithstanding the small amount of urea eliminated.

H. H. K.)

## PERISCOPE.

## COLLABORATORS.

*Dermatology:*  
HENRY G. PIFFARD, M.D.  
*Diseases of the Nervous System:*  
EDWARD C. SEGUIN, M.D.  
*Diseases of Women and Children:*  
FRANK P. FOSTER, M.D.  
*General Surgery:*  
EDWARD J. BIRMINGHAM, M.D.

*Practical Medicine:*  
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*Genito-Urinary Disease and Syphilis:*  
ROBERT W. TAYLOR, M.D.  
*Materia Medica and Therapeutics:*  
FREDERICK A. LYONS, M.D.  
*Ophthalmology and Otology:*  
SAMUEL B. ST. JOHN, M.D.  
*Orthopedic Surgery:*  
NEWTON M. SHAFFER, M.D.

THE PATHOLOGY AND TREATMENT OF URETERO-VAGINAL FISTULÆ, ILLUSTRATING THE VALUE OF "*Bozeman's Method*" OF OPERATING. BY LOUIS BANDL, VIENNA, REPRINT FROM THE *Wiener Med. Wochenschrift*, 1878. *American Journal of Obstetrics*, JULY 1878. TRANSLATED AND ABSTRACTED BY RUDOLPH TAUSZKY OF NEW YORK, WITH EXPLANATORY REMARKS FROM DR. NATHAN BOZEMAN.\*

Landau (Arch. f. Gynack, Vol. 9, page 426,) one year ago, could find the records of only four cases. These are: two by Simon, one by Alquié, and one by Panas. The fifth case was described by Landau himself. In the latter there was a very small slit like opening at the fornix vaginae on the left side. A thin probe could easily be pushed through this opening toward the left kidney to the depth of about twenty centimetres. It was not difficult to pass the probe through the same slit-like opening into the bladder by bending the instrument to an acute angle. A sixth case, "Rupture of the whole vesico-vaginal wall, on the left side," is mentioned in "Winckel's handbook of the diseases of women, pp. 111-77. No. 281." The stump of the left ureter opened on the anterior lip of the cervix uteri—on the left side.

Very often one or both openings of the ureters are visible on the upper border of the fistula in cases of extensive vesico-vaginal defects. The dribbling of urine can be perceived from the openings of the ureters. A thin catheter (Charriere No. 2) can be passed without difficulty towards one or both kidneys without danger or pain. That part of the ureter (one centimeter in length, which runs within the mucosa of the bladder, may be entirely uninjured, or, in other cases, we find it had been destroyed by the same agency that caused the vesico-vaginal fistula, also that portion of the ureter (15 cms. long) that pierces the bladder in an oblique direction, running from behind and upwards, downwards, towards the so-called trigonum Licutandii, may have been destroyed by gangrene, and after having

\*The chief points of difference between Bozeman's and Simons methods of operating are as follows:—S. operates in the lithotomy position, B. in the knee-chest. S. uses immediate dilatation, B. gradual. S. uses silk thread, B. silver wire with button suture. S. places sutures close to each other. B. separates them widely. S. leaves no catheter in, B. does sometimes.—Ed.

healed it can be seen that the ureter is connected with the bladder through a little muscular bridge only, or it had entirely separated and the ureter then abnormally opens into the vagina. This pathological condition is termed "*uretero-vesico-vaginal fistula*." If the defect in the vesico-vaginal septum is large, the opening of the ureter can be easily found in most cases, especially when that part of the ureter, which connects with the bladder, had been destroyed. This opening is then usually gaping, and the dribbling of urine may be noticed from it. If the defect had contracted through the shrinking of the tissues, or if it had been very small from the start and the ureter opens into its margin; or, if the opening of the ureter into the bladder is normal and is located within the mucous membrane of the same, it may not be found by the most skillful operator. The opening of the ureter may have become attached to the vagina and drawn away from the wall of the bladder by cicatrization or that portion of the ureter which runs outside the bladder may have been destroyed through pressure of the child's head upon the soft parts, and, when sloughing of these and cicatricial shrinking of the edges occur, the opening of the ureter may be further away from the bladder, and is attached to the vagina or the cicatricial tissue of the same, in which case we have a "*uretero-vaginal fistula*" besides having also a vesico-vaginal fistula. "The ureter opening in such cases into the vagina." Part of the ureter had been lost in such cases, and that portion of it that perforates the wall of the bladder is then wanting. Defects of the bladder may form spontaneously. This is not rare, especially if the uppermost portion of the vagina and a part of the uterus have been destroyed at the same time. The mouth of the ureter alone remains open, and we then have a "*uretero-vaginal fistula*." Three such cases having been treated by Bandl, according to Boezeman's plan, he brings the excellence of this method which he prefers to all others, to the notice of the profession. It is difficult to explain the origin of purely "*uretero-vaginal fistula*" where the vagina was found to have been normal as far as can be judged from the published description of the cases, with the exception that the ureter opened into it, one-two cms. distant from the cervix uteri. Such were the cases of Simon, his 2nd, of Alquié, and also that of Panas. In one of these, published in Spiegeberg's *Klinik*, by Landau, a pessary caused the trouble. Landau terms these fistulae "*vagino-ureteral fistulae of the fornix*" and Winckel named them "*high uretero-vaginal fistulae*." One of this description is Bandl's third case. Bandl ascribes *erroneously* as will be seen by the annexed letter of Dr. Boezeman to the reporter and translator, the origin of two cases of uretero-vaginal fistulae, which he saw himself, as having been produced, unknown to the operator, and of course, unintentionally, by accidentally having cut into the ureter while operating for the cure of vesico-vaginal fistula, thus producing artificially a "*uretero-vaginal fistula*" which was permeable to a very thin surgical probe. He described this case in 1875.

The opening of the right ureter was visible; of the left, nothing could be found. The small defect did not remain on the right side



of the cicatrix, as Simon erroneously thought and represented. But on the left side, on which the ureter could not be seen at all. Between *the last* and *the next suture to it*, there remained a small opening which was very correctly recognized by Bozeman as having been produced by including the ureter into the suture, and having accidentally cut into it and thus complicated the existing disease by producing a "uretero-vaginal fistula." (Dr. Bozeman's herewith published letter makes it evident that Dr. Bandl is in error regarding the origin of the small fistula remaining behind after the operation performed by Dr. B. in Vienna.) Bandl goes on to say that "To do justice to Bozeman he cites that part of the article that appeared last year against Bozeman's method in which Simon states "I must here return to the consideration of including the ureter in the suture. Bozeman ascribes a small fistula remaining behind to this circumstance, in the second case on which he operated in Vienna. But he states, in the history of his case that the visible opening of the ureter the right one cm. long, towards the bladder, was cut into, and, Simon further says, it is therefore difficult to imagine that this defect should not have been caused by the *next to the last* and *not by the last suture*, which should have pressed back the lumen of the ureter, the remaining fistula having corresponded to the next but last suture. "Since the visible opening of the ureter was on the upper margin of the right side, and the small fistula remained on the left side, Simon's objection is valueless and unfounded. Simon further states, "moreover, it seems to me, that in this case also, the "cause of the remaining small fistula has been produced in another way." "If it were correct, as Bozeman asserts, that he has included the ureter in Heidelberg, in Vienna, and before that already in Paris, and thus caused the small fistulae, we should have to assume that his *suture* particularly acts injuriously, in this regard, because, as I have shown above, such remaining defects have never been observed either by myself or by other operators, as an obstacle to a complete cure." The patient, Chave Kora, whom Bozeman operated on, July 13th, 1875, in the clinic of Professor Karl von Braun, returned in June, 1876, to the same clinic. She could pass her urine every 3-4 hours spontaneously, but, at the same time, always lost, involuntarily, large quantities of urine. She had a small defect on the left side one centim. from the outer end of the cicatrix, and two cms. from the vaginal portion of the cervix uteri. Through this a small surgical sound could be passed, when the escape of a little urine was noticed from it from time to time. It was easy to push the probe through this little fistula toward the left kidney. Clear urine would then permanently flow through it by drops. This dribbling of clear urine would even continue while the bladder was being filled with various colored fluids, as Bandl had demonstrated repeatedly at Braun's clinic; neither was it possible to demonstrate a communication of the bladder with the opening of the ureter in the vagina. It was surely a "*uretero-vaginal fistula*." The objection of Prof. Simon that Bozeman's widely separated sutures included the ureter easier than the narrowly separated ones, is noteworthy, but neither Simon nor

any other operators ever observed this obstacle towards completely curing their cases. Its cause is this, in Bandl's view, that where there are large defects; where the upper margins and the angle are immovable, other operators have not united the borders of the fistula, but have invariably performed "*Kolpokleisis*." Simon blames Bandl in the following words: "It seems strange that the reporter [Bandl] considers Bozeman's second case cured, although the worst part remained open, because, according to Bozeman's and Bandl's views as well, the remaining little fistula was a "*vesico-uretero-vaginal fistula*." But, since Bozeman, if operating for such large defects, could not avoid the visible ureter, it must be presumed that he will be less able to do so while operating for the remaining little fistula, when the ureter cannot be seen as well, or not at all.

The success seemed so great to Bandl that he thought he would be pardoned for the courtesy expressed towards Bozeman in the case. (Of a uniting line of 5 cms. long there remained only 2 mms. unhealed. The visible—the right—opening of the ureter had been avoided by Bozeman, contrary to Simon's erroneous opinion, because the small defect remained on the left side. By searching the whole literature, Bandl found that of all the cases of *uretero-vaginal fistula* not one had been cured in a direct way. Landau writes "For the cure of *uretero-vaginal fistulae* heretofore a great many, but always *resultless* experiments were made." Simon cut down in his first case using a catheter in the bladder, pressing it against the fistula, and changing it into a transverse funnel, and then closing the wound by uniting the mucous membrane of the vagina. But soon after the operation the opening in the bladder closed, and the closed vaginal walls opened. Simon then tried to cure the fistula in two acts, in the first he again opened the lower end of the ureter, and made it permeable, trying to close the fistula by a second operation. Since this *also failed* Simon gave up all hopes of being able to cure his patient, and he did not repeat his operation in his second case.

He, however, observed later that if he had at that time been convinced of the high value of *Kolpokleisis*, he would have closed the vagina, he therefore recommended this method for the treatment of all the cases similarly affected as the *only mode of obtaining permanent relief*.

The authors of the latest works "on gynaecology" all agree with Simon's last recommendation. Thus "Hegar and Kaltenback state that the defects of "*ureteral fistulae*" can only be cured by an indirect procedure. Schroeder says: "also in cases of *uretero-vaginal fistulae* thus far the oblique obliteration of the vagina is the *only possibility of curing them*. If the vesical end of the ureter is closed, it is necessary to convert the existing defect into a *vesico-uretero-vaginal fistula*, and below this the vagina must be closed. Bandl operated in his cases according to Bozeman's method, using the latter's table and instruments, and is highly pleased with the results thus obtained. In conclusion we will state Bandl's language in quoting Professor Simon's opinion in regard to the value of Bozeman's method of operating for *vesico-vaginal fistulae*. "In spite of his opposition to Bozeman's

direct method of operating, as stated above. in cases of uretero-vesico-vaginal fistulæ, the late Professor Gustav Simon, of Heidelberg, shortly before his death, wrote a paper entitled; "a comparison of Bozeman's method of operating for vesico-vaginal fistula, with that of the author." In this publication Simon admitted that by Bozeman's method of operating, a large majority of cases of fistulæ can be cured and that it can be favorably compared with that advocated by Sims, Emmet, and his own Simon's. Bandl therefore claims to be justified to call the attention of his German colleagues to the excellent method practiced and advocated by Bozeman for the cure of such distressing and disgusting diseases. Of the highest value in the treatment referred to, is Bozeman's preparatory treatment of gradual dilatation by means of which the margins of the fistula are made accessible and movable. Bandl had the good fortune of having cured fifteen women in fifteen months in Prof. Karl v. Braun's klinik and two in private practice, in accordance with Bozeman's method. He describes them minutely and gives details in full regarding the history and the result in each case.

Verneuil thinks the operation for fistula dangerous. Bandl did not lose a single case, and states that normal urine possesses antiseptic properties, since in none of the cases were ever septic symptoms noticed.

DEAR DR. TAUSKY :—It is evident from the criticisms of Prof. Simon, in 1876, contained in that part of his report of our respective operations relative to uretero-vaginal fistules that he misconstrued my views upon the subject, and consequently placed both me and my particular method of operating in a false light. He makes it clear beyond all dispute, that the explanation given by me of the partial failure in the three cases of vesico-vaginal fistule operated upon by me respectively in Paris, Heidelberg and Vienna was not in accord with the experience of himself and other German Surgeons, and that if laying open the ureter really occurred in my Vienna case it could be viewed in no other light than that of a grave complication, due to the defectiveness of my method of operating. The truth of the matter is I never made any explanation whatever to either Prof. Simon or to Dr. Bandl upon the subject of uretero-vaginal fistule, as an accidental complication liable to attend my operation for vesico-vaginal fistule, for I had then never seen such a complication, and if it be true as stated by Dr. Bandl that this accident happened in the case of Chaye Kora, of Hungary, upon whom I operated in the presence of himself, Billroth, the Brauns and many other physicians of Vienna, it is the first one of the kind that has ever befallen me in the whole course of my long experience. All that I ever said to either of them in relation to the ureter was that one or both of them, when implicated in any vesico-vaginal perforation had always to be slit on the vesical side of the septum and straddled by the sutures, and that in the three cases referred to, the failure on my part to complete the cure at the first operation was due to my inability to take these precautions, because two only of the five ureters involved could be seen, and so treated. The partial failure in each case I attributed to these circumstances



and the philosophy I gave to Prof. Simon of the accident was that the upper end of the ureter although properly straddled by two of my sutures, was brought so squarely and firmly against the lower border of the fistule in the act of approximation that the urine from the corresponding kidney could neither reach the bladder nor the vagina until the accumulation and pressure of the fluid in the pelvis of the organ became so great as to force an outlet, and that the resistance being less in the direction of the vagina it took this course. In this way was left so thin a space on the vesical side of the ureteral orifice that the cicatrix could not stand the strain and finally gave way, thus establishing passage directly through the vesico-vaginal septum under the end of the ureter, which constituted a vesico-uretero-vaginal fistule, and not an uretero-vaginal fistule as above indicated by the remarks of Prof. Simon. In my Vienna case so ably reported by Dr. Bandl, this result certainly followed, and at my last examination of the line of union over 5 centimetres in length no other defect existed in it than the one about the size of a surgeon's probe, corresponding precisely to the anatomical position of the left ureter, and through which the urine flowed in common into the vagina both from the ureter and bladder, the suggestions made by me to Dr. Bandl, while in Paris were based upon this knowledge of the pathological condition of the parts.

The result in this case, considering the enormous size of the fistule and the absolute immobility of its borders a month before my operation, I may further add, stands upon record as the triumph of a single operation rarely if ever realized before from any procedure known to surgical science. That this small vesico-uretero-vaginal fistule afterwards closed by granulations, and that Dr. Bandl, discovered half an inch or more above its original seat in the track of one of my sutures an uretero-vaginal fistule, only shows how near I came to the completion of my work at a single effort, and how nature sometimes, when properly aided, excels the best directed efforts of the most skillful surgeon, since according to the history of the treatment of uretero-vaginal fistule, up to the present time, its conversion as a preliminary step into a vesico-uretero-vaginal fistule has been the rule of all operators, and success the exception, if not an unheard of occurrence. But the actual discovery by Dr. Bandl, of an uretero-vaginal fistule in the situation mentioned by no means proves conclusively that this was the result of the transfixion by my needle of the little tube in question, for it may have been produced by pressure of the child's head and subsequent sloughing just as happened in the large and complete perforation, which I found to exist under the form of a vesico-urethro vaginal fistule, which became manifest only when the latter had been perfectly closed. Under ordinary circumstances I have known this to happen repeatedly. Grant, however, that my needle was the cause, it must be admitted that the same accident might have happened to any surgeon using a needle or other cutting instruments, and that my individual method is no more accountable for what accidentally took place than would be the method of Prof. Simon or of any other surgeon under the same circumstances. For one reason if no other, I

think my method is far less liable to be followed by such an accident than other procedures, namely, the fewness and greater space of my sutures, which allow more certainly the straddling of the ureter an absolute necessity.

Now, as to the treatment of uretero-vaginal fistule generally, and of the one especially ascribed by Dr. Bandl, to the cutting of my needle in the case cited I must defer further remarks to another time. Suffice it for the present to say that as early as 1856 North Am. Md. Chr. Review for July and No. 1857 I fell upon a successful plan of treating vesico-uretero-vaginal fistules, which is equally applicable to the form of uretero-vaginal, as I have since 1871 proved in the only case which has come under my observation. This case has not been reported at length, but may be found referred to by Prof. Frank H. Hamilton in the first edition, 1873 of his able work on the Principles and Practice of Surgery. It occurred in a young woman with contracted pelvis in her first confinement and was complicated with partial atresia of the vagina just below the ureteral orifice situated about  $1\frac{1}{2}$  cent. to the left of the cervix uteri and almost on a level with it. I adopted a method for its treatment quite different, as I shall hereafter describe, from that recommended by Simon, or by Landau, or by Bandl, and the result was a perfect cure, as I have repeatedly verified since by examination. The patient some two years afterwards was delivered by craniotomy but escaped this time without impairment of any of the genito-urinary functions. If Dr. Bandl failed in his efforts to cure the case in question, as would appear from his remarks upon the subject, then my case stands alone as a complete cure.

Yours, very truly,

NATHAN BOZEMAN.

New York May, 27, 1878.

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ON THE USE OF OIL OF TURPENTINE AND LUCUA OIL IN TYPHOID FEVER. BY P. L. O'NEILE. *The Practitioner*, June, 1878.

In the April number of the *Practitioner* there appears an abstract from a communication of Doctor Persse White to the *Medical Times and Gazette*, in which he extols oil of turpentine as a remedy in bronchitis complicating typhoid fever. I can endorse his remarks, and, at the same time, add that oil of turpentine, combined with lucua oil, in the proportion of fifteen minims of the former to thirty or more of the latter for a dose, and made up with mucilage or the yolk of an egg, is the best remedy for the diarrhoea and tympanites, which are generally associated with the typhoid which prevails here at present. In the extensive practice which I enjoy, I have found this combination superior to any other drugs. Under its influence the stools are reduced in number, and become more solid in consistence, and the tympanites gradually less. In only a few patients have I known its administration to be attended with disagreeable results to the stomach, the greater number manifesting a wonderful tolerance of it. It may be given three or four times in twenty-four hours, and continued for

weeks if necessary. It prevents the palpable wasting of the disease, and obviates the necessity of giving alcoholic stimulants to a great extent—no mean desideratum in a workhouse institution.

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ON THE EMPLOYMENT OF THE OXALATE OF CERIUM IN PREGNANT SICKNESS. BY FRANCIS EDW. IMAGE, M.A., M.B., CANTAB. *The Practitioner*, June, 1878.

The interesting account published in your extracts from foreign journals, in the last number of the *Practitioner*, of the utility that ingluvin has met with in moderating and restraining the vomiting of pregnancy at the hands of Dr. Frowert, leads me to put in a plea for a drug that has of late years much fallen out of use. Sir James Simpson introduced the oxalate of cerium, and prescribed it in ten-grain doses. The officinal dose is from one to two grains, which is as a rule so useless that the preparation has been stigmatized as the "oxalate of mud." As a general practitioner of seven years' standing, very many cases of pregnant-sickness have naturally come under my care, and up to the present time I have not met with a case in which the nausea has not been very considerably relieved, and in most cases completely checked, by ten-grain doses of the oxalate of cerium. I have, at the time of writing this, a lady under my care who, from the fourth week of her pregnancy till now, the eighth month, has suffered at intervals from this distressing symptom, but whose sickness has been invariably checked by from two to three days' administration of the oxalate in the dose I have mentioned. In severe cases I give it every four hours for the first day, beginning the first dose half an hour before the patient rises, and then, as improvement takes place, diminishing it to three times a day; but always giving the first dose of the day before the patient moves from the horizontal position—a point to which I attach much importance. The formula I employ is:

R

Cerii oxalatis, grs. x.

Pulv. trag: co., grs. x.

Tre. aurantii, 3 ss.

Aquam ad., ℥ i. M. f. m.

In Dr. Frowert's case he prescribed  $1\frac{1}{2}$  grain doses, which were "not followed by the slightest remission of symptoms." I hold that this want of good result was from the insufficiency of the dose.

The oxalate of cerium I have also found most efficacious in restraining the nausea resulting from uterine irritation. I generally combine it with bromide of potash in these cases, but have found it succeed in combination where the previous employment of the latter drug by itself has been without appreciable effect.

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THE TREATMENT OF WOUNDS. BY M. ALPHONSE GUÉRIN. *British Med. Journal*, JUNE, 22ND, 1878.

Since the return of M. Alphonse Guérin to Paris, this eminent surgeon has delivered, at the Académie de Médecine, an address on the



treatment of wounds which has produced a marked impression. M. Guérin has, it is well known, long practiced an antiseptic method of dressing, which consists in careful and minute cleansing of wounds by a stream of carbolized water (with a strong solution of twenty per cent. of carbolic acid), and their subsequent envelopement in thick masses of fresh cotton wool; this acts as a filter, excluding septic germs. The method, which precisely accords in plan with Pasteur's first experiments and Tyndall's subsequent verifications, gives admirable results, of which he gives details. M. Guérin gives his impressions of the Listerian method, which have been agreeable modified by his personal inspection of them, and renders full justice to the method which carries out in perfection the antiseptic principle. He refers also to the good results of Mr. Callender with simple carbolic dressings, applied with great care as to isolation of dressings, absolute cleanliness, and attention to the details of the patient's condition. The answer to the objections to the antiseptic principle in surgery is very complete; and indeed, so thoroughly has the opposition to this method broken down in France, that we may necessarily expect to see a rapid development of Listerism in the French hospitals, and a correspondent decrease in the mortality from pyæmia abcess, erysipelas, etc., which till lately offered so habitually shocking a spectacle to their surgical visitors to those hospitals.

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#### SUCCESSFUL LIGATURE OF THE LEFT SUBCLAVIAN ARTERY.

Bochine relates the case of a peasant, æt. 33, who, thirteen days prior to his admission into the hospital had received a wound of the so-called tabatiere of the left hand; an aneurism of the size of a walnut had supervened, but the wound and the wall of the aneurism had become gangreous. An examination of the vessels revealed a division of the brachial in the middle of the arm, and pressure brought to bear upon ulna and radial arteries simultaneously caused the pulsations in the tumor to disappear only for a short time. Digital compression of brachial artery was practiced for five days, but the rupture of the aneurismal sac ensued and necessitated ligation of the brachial artery. Three hours after the operation hemorrhage from the sac again came on and during five days the brachial and axillary arteries were compressed, ligature of the axillary artery. Five days later secondary hemorrhage from the axillary followed by the ligature of the subclavian in its third portion. On the twelfth day after the operation ligature came away, and two days later renewed hemorrhage of the axillary artery. Compression was now made with a piece of lead pipe in the supra-clavicular fossa, in the mean time gangrene of the hand and forearm had reached the elbow, so that B. was compelled to amputate in the lower third of the arm on the fortieth day after the injury. Owing to the excessive anæmia, the operation was performed without anæsthesia. The patient recovered. All the wounds having closed within three months of the patient's admission. Raccoglitore med.—*The Clinic*.

## NEWS ITEMS AND NOTES.

Diphtheria and Lactic Acid Spray. —Dr. H. Berger, of Long Island City, reports two cases of severe diphtheria, successfully treated by the local application of dilute lactic acid in the form of spray. He recommends the adoption of this remedy in all desperate cases of this disease.—*British Med. Jour.*

Dr. F. T. Roberts, the author of the popular *Handbook of Medicine*, and assistant physician at the University College Hospital, has been nominated Professor of Materia Medica and Therapeutics in University College.

Period of Incubation of Mumps. —Mr. A. R. Manby, of East Radham, Norfolk, states that the period of incubation in mumps is passed over in silence in many modern works, and that on being asked how long a lady who had been thrown in the way of mumps three days previously need fear lest she had contracted the disease, he replied at hazard a fortnight, but was annoyed to find that an attack supervened on the twenty-first day.—*British Med. Jour.*

Compressing Manure. —Dr. Alexander Hadden, of this city has, for some years been in the habit of compressing manure into flour barrels and sending it by boat to his farm on Long Island. By his method about 250 lbs. of fresh manure is pressed into every barrel and the juices thus squeezed out before decomposition takes place. The manure is dry, readily pulverized, easily transported and odorless. If those who send manure to the country would take heed to this and try it, they would avoid the horrible stench heretofore considered unavoidable and save money in freight. One advantage of putting up manure in this way is that instead of laying in a heap and decaying, the process does not take place until the manure is put into the ground, where it will do the most good.

# THE HOSPITAL GAZETTE

AND

## ARCHIVES OF CLINICAL SURGERY.

A WEEKLY JOURNAL OF MEDICINE, SURGERY AND THE COLLATERAL SCIENCES.

EDITED BY

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H. H. KANE, M.D., Associate Editor.

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### LECTURES.

#### LECTURES ON INSANITY.

Delivered at the College of Physicians and Surgeons, New York.

BY

E. C. SEGUIN, M.D.

Clinical Professor of Diseases of the Mind and Nervous System.

(Reported For THE HOSPITAL GAZETTE.)

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#### LECTURE I.

GENERAL IDEAS OF INSANITY—INSANITY AN ORGANIC DISEASE—  
DEFINITION—CLASSIFICATION—CONDITIONS OF DEPRESSION—HY-  
POCHONDRIA AND MELANCHOLIA—HYPOCHONDRIACAL—MELAN-  
CHOLIA. HYPOCHONDRIASIS—SYMPTOMS, TREATMENT AND PROG-  
NOSIS.

Gentlemen,—Owing to the shortness of the time allotted me for this course of lectures, I shall not be able to go so minutely into the subject as I might wish, but shall endeavor to give you, as fully as I can, the general principles relating to the clinical history, pathology, etiology and treatment of those diseases of the brain that we call insanity.

In the first place I wish to call your attention to the general notions that have been held as regards insanity, and to determine what conception we, as physicians, should have of this subject.

Up to a century ago there was a great tendency to look at the disease as something essential in itself, generally a mysterious, occult manifestation of divine power, a dispensation of God. The disease was always separated carefully from other diseases of an ordinary nature and looked upon as a different entity. These views, I need not tell you have been very materially altered and we now regard insanity in a more natural and scientific light. This change is in part owing to the growth of the sciences of anatomy and physiology, and to the



changes in psychological science due to the explanation of mental phenomena by physiological and physical principles, and also partly due to a general reactionary movement which has taken place against what was known as *dualism*. The believers in that doctrine held the notion of the distinct and separate existence of mind and body.

To-day we look upon insanity as an ordinary disease. It is part of our nosological classification just as much as any other disease of the body; as dyspepsia, pneumonia, meningitis or any other of the numerous morbid conditions I might mention. There are some, however, who still hold to the old exploded opinions, and I am sorry to say there are among them a good many superintendents of American asylums. Some of them have not yet advanced so far as to discard these notions but still base their ideas of insanity on the conception of a *mens* as distinct from the body. We must consider insanity as a disorder or disease of the brain, as dyspepsia is a disease of the stomach, or pneumonia of the lungs, although we can not in many cases, as we can in those diseases, always connect the symptoms with molecular or gross changes in the organ of thought.

This leads me to define insanity. In endeavoring to learn from books the formulæ employed, we are at once struck with the fact that no two authors have ever agreed. Indeed there can be no exact definition in the strict sense of the word. We might as well attempt to define hepatic disorder. This term would include all the diseases of the liver which of course it would be impracticable to bring into one definition. So it is with insanity as it covers a great many pathological conditions, reflex, molecular, circulatory, and gross organic changes. We can only say that by insanity we mean *disordered manifestation of cerebral activity*. This is no true definition, but it covers the ground. Such a definition may be applied to delirium, yet authorities reject delirium from the classification of the forms of insanity.

As regards classification, a good many plans have been adopted, but I think that probably the oldest is still the best. The ancients recognized the great difference between states of depression and states of violence, hence the terms melancholia and mania. Esquirol, in France, in 1820 and 1840, made some improvements on this simple division, and the Germans adopted it with some modifications, in which a new disease was included. This is probably the best classification for use at present though other praiseworthy attempts have been made. Skey proposed a pathological classification, the only objection to which is that we do not as yet know enough of the pathology of insanity to make it correct. There are forms of the disease, the pathology of which we scarcely know anything about, and indeed it is only in a few cases that we can clearly make out the pathological state, and the correlation between symptoms and lesions. Morel, in France, proposed an etiological classification such as hereditary, toxic, accidental insanity, etc. The same objection applies here, for as yet we do not sufficiently understand the causes of mental disorder to base a classification.

In Dr. Hammond's work on Diseases of the Nervous System, we find an attempt to revive the old metaphysical ideas. The forms of insanity are classed as perceptual, emotional, volitional, intellectual,

etc. The basis of such a classification is only metaphysical views, which must be abandoned. The division of mental phenomena into the emotional, the volitional, the intellectual, the moral faculties, etc., is a pure abstraction, a device of closet study and not of observation, which is the modern scientific process.

A classification must be natural as well as scientific, and that of Esquirol answers that requirement perfectly. It is decidedly a clinical classification, and as such is best adapted to the present state of our knowledge. If you look back at the history of medicine, you will see that all diseases have at one period in the history of the growth of our knowledge on the subject, been classified in this way, according to the clinical symptoms presented. It has been so with pulmonary diseases, abdominal diseases, and others. As we progress in knowledge we shall arrive nearer to a basis of pathological classification, which, of course, is by far the best if we have well-proven facts on which to ground our divisions; but in the study of insanity we have not yet arrived at that stage, our pathological groundwork is by no means solid, and so we shall have to fall back on our clinical classification. The best one, perhaps, as I have already remarked, is that of Esquirol modified, and is as follows:

#### FORMS OF INSANITY.

- I. Conditions of depression.
  - 1. Hypochondria.
  - 2. Melancholia.
- II. Conditions of Exaltation.
  - 1. Mania.
  - 2. Monomania.
- III. Conditions of Mental Weakness.
  - 1. Chronic Mania (incoherence).
  - 2. Dementia.
- IV. Paralytic Dementia.
- V. Congenital Deficiency.
  - 1. Idiocy.
  - 2. Cretinism.

You will observe that there are five classes; of these the first two are of most importance, because they embrace most of the acute cases. In the first the whole being, or *ego*, is depressed. It may manifest itself as hypochondriasis, or melancholia. Then we have an opposite condition of the *ego*—a mental state abnormally active, extravagant, and reacting violently on the external world. This condition shows itself as mania and monomania, although, perhaps, as we shall see later on, there is, truly, no such thing as the latter condition. Next, we have conditions of mental weakness. The fourth class should be, perhaps, designated differently. A distinction was made some years ago. General paresis, and dementia paralytica, may not be different pathologically, but clinically they are quite different. Next in order come congenital deficiencies.

We will first consider the conditions of depression, and review the general characteristics of that condition. The fundamental condition



is the depressed state of the ego; it no longer reacts on the external world, but on itself. The individual is low-spirited and sad, feeling and appearing as if he had a fit of the blues, which continues indefinitely. If you will recall the experiences you yourselves have gone through, when you have had what is commonly called the blues, you can imagine the state of the patient's mind; but, of course, in his case it is much intensified. The thoughts are turned inward, and every occasion is made to affect him injuriously. The train of ideas is ruinous; it is of that sort in which no brightness or hope ever enters. The person has a fear of death, of immediate ruin; he perhaps thinks he is going to be sent to jail, or that he has committed crime. He imagines that everything is detrimental and everybody inimical to him.

There are two great varieties of this condition of depression—hypochondria and melancholia.

**HYPOCHONDRIA.**—Although these two conditions bear a sufficient resemblance to be classed in one group, they present certain prominent symptoms which make a diagnosis possible. The differences are that the apprehensions of the hypochondriacal patient are concerning his own organs, while the melancholic patient dreads external things and future events, but is not medically anxious concerning himself; he may even fancy himself in perfect physical health. The hypochondriacal patient considers himself very sick; his conversation reverts to nothing else but his maladies. His disease is partly real and partly imaginary. I say partly real and partly imaginary because there is a period in the commencement of the disease when the ailment is altogether imaginary. The patient, when he first comes to you, complains of dyspepsia or disease of the liver, or some other trouble, and there are really no objective symptoms whatever present; but after a while he may come back with well-marked symptoms of dyspepsia or other disease. In the second stage a functional disease may be produced by the constant fixation of the attention on the part. There are a good many physiological facts that may account for this. Concentration of the thoughts and of the whole attention on a particular part of the body may produce congestion and even ecchymoses in that part, and finally disease may appear. Dr. Tuke, in his interesting work upon the influence of the mind upon the body, relates numerous and convincing instances of such effect. Thus, in hypochondria, if the attention be fixed on the stomach, vascular and other changes may take place in the mucus membrane of that organ, giving rise to symptoms of dyspepsia.

In the first stage of the disease, and passing into the second stage a condition that is almost pathognomonic is the changeableness of the disease of which the patient complains. He will tell you for a while, in piteous tones, about his stomach, then a little later he will inform you that his heart is certainly diseased for it gives him great trouble. After a while he complains of a grave cerebral disease and so on; indeed patients have been known to go through their whole economy, one organ after another being the seat of some disease. To make your diagnosis you have to depend entirely upon your own observations of the patient's mental state and the physical signs. You must not allow the condition of the patient as related by himself to influence your judgement.



I now call to mind a case related to me by my friend Dr. Draper, of this city, illustrating the liability of some individuals to develop diseases that are brought to their attention. If this lady heard or read of any serious disease, she was immediately seized with the notion that she was suffering from it. This has happened time and time again. If she read in the newspaper the obituary notice of any prominent individual, she fancied that the disease from which the person died was affecting her. She has already had, in her imagination the most extraordinary diseases, rare tumors, affections of the spleen, the uterus and so on. She exhibits the phenomena of moral contagion. In these cases we must avoid sneering at the patient because his troubles are imaginary, and we must not tell the patient bluntly that he is not sick, as such a course scarcely ever does any good.

The third stage of hypochondria is marked by the development of some real organic disease. The majority of these patients die of organic disease of some organ. In making the post-mortem examination, we may find a cancer of the stomach, an immense accumulation of feces, phthisis, or organic cardiac disease. The question arises if the organic disease is not the result of long concentration of the attention on a particular organ, causing hyperæmia of that organ, and this in its turn, giving rise to structural changes.

I have stated that the tendency of a hypochondriacal patient to have peculiarities and diseases of his organs distinguishes him from the melancholic patient. There is one more point of difference I must not omit to mention. The patient with hypochondria is anxious to be treated and to get well of his malady, whereas the individual with melancholia, rejects all offers of aid, he does not care to be seen by a physician, and is averse to being treated. The first is anxious for interference, he desires medicines and advice, the second fancies that his trouble is beyond human aid, and he usually wants to be let alone.

There is an intermediate form between these two conditions, that may be called hypochondriacal melancholia, many of the patient's ideas relate to the state of his organs but his mental condition is that of melancholia. The patient imagines that he has disease of various organs but he is entirely unwilling to be treated for his troubles, thinking that the physician can do nothing.

The etiology of hypochondriasis is complex, often a disposition to it is inherited. Males are much more prone to it than females, and it is a disease of adult life. Among exciting causes we must recognize masturbation or sexual excesses, reading of medical books, sojourn and sympathy with a sick person, a condition of debility, or a fright, may, in a predisposed person, engender the disease.

The treatment of hypochondriasis is a distressing chapter of therapeutics. Our first impulse when such a patient comes to us with a long face and as long a string of ailments is to laugh at him. You feel that to act honestly with him you should tell him that there is nothing at all the matter. If you do so the result will be that he will go to someone else. He will probably go to a quack and then the consequences will be disastrous to your patient. I do not think that we ought

to act in such a manner. The wisest course is to try to allay his fears, and calm his anxiety, assure him that the organ he imagines to be affected is not so diseased as he thinks. We may treat him deceptively so far as it is quite justifiable, direct his attention to hygienic rules, and give a placebo. In these cases we may often find use for pepsine or a like agent, and by it endeavor to improve the digestion. You should try to direct the attention of the patient away from himself. Of course we must not tell the patient in so many words not to think of his disease, to think of something else, for that would be useless. Induce him to engage in some occupation or to seek pleasure. Improve his general condition. If he be healthy and strong encourage him to keep on with his business and fight his feelings. Tell him to keep his mind occupied in business, for while he is absorbed in his occupation he does not think of his ailment, whereas when he is quiet and doing nothing, he is sure to think of nothing else. Tell him to read books and papers, to go out into society more, to go to concerts, theaters, &c.

In many cases the patient is weak and may not be able to attend to business, or it may be a female who has no regular occupation. Under such circumstances the only resource is amusement. But the patient may soon tire of this and then one of the best prescriptions is travel. By this means he gets diversion, a new set of influences, and a change of scenes, surroundings, and friends. Crossing the ocean is an excellent thing. The patient is likely to get sea-sick, and sea sickness is an actual disease. He has then a real instead of an imaginary complaint to think of and his attention will be drawn from the latter. Abroad he will have new amusements, see new faces, new scenes, etc., and his thoughts will run in a different channel.

In lieu of these we can do scarcely anything. This is a most trying position for the physician to be in. The patient can not afford to go abroad, women have no occupation. In these cases you may prophesy that a cure will never be effected. For a time you may make them think they are being benefited, and then they will come and tell you that the medicine "has lost its effect." Of course I need not say that that is not a true statement, it is the moral effect that is lost. In these cases the doctor is pestered to death, I have a number of such cases now, and would only too gladly induce them to call upon another physician.

As regards the treatment of the second and third stages. The moral condition must be treated in the way I have indicated, and, besides this, we must meet the pathological conditions that are present. Catarrh of the stomach, prostaticorrhea, or spermatorrhœa should receive their appropriate treatment, and so with palpitation of the heart, disease of the lungs, or cerebral symptoms.

There comes a time when all we can do is to make the patient comfortable. It is then a question to decide whether or not to use narcotics. If they have been used in the first stage we have the hardest cases to deal with. I think that it is only justifiable to use them in the third stage, when serious organic disease exists, and we are confident that we cannot cure the patient, to make him comfortable to the end.



In those cases in which I have decided not to use narcotics I employ instead of opium and chloral, valerian or valerianate of ammonia, camphor or conium. They act differently from the true narcotics and are not so likely to generate the habit of taking them too freely. I strongly protest against the use of opium and chloral and stimulants unless they are absolutely necessary.

A fashionable thing to do in these cases is to give tonics. Like the giving of other routine prescriptions this is a wrong thing to do. Iron or phosphorus is usually prescribed. This is bad practice, because indigestion is usually the result of such a course of treatment. Even in sexual hypochondriasis where we would expect most benefit we do not get good results, and the digestive organs are disturbed. Iron is likely to produce a fullness in the head, and plethora, which is undesirable. In beginning treatment, I invariably first get the digestive organs in good condition by regulated diet, Vichy water, bitter infusions, nitro-muriatic acid, etc.; and I afterward give tonics, only when clearly called for.

In males you should always look carefully into the condition of the sexual organs, for in many cases you find some derangement, whose cure will give relief. In women, the same is true but it is not of such frequent occurrence. You may not have vicious habits and masturbation so frequently, but you may find some neurosis or other equally harmful condition of the uterus or ovaries. In women, most cases occur at the time of the menopause when there is more or less disturbance in the sexual apparatus.

In adults, generally, the prognosis is not good, in young persons it is better, and it is decidedly better when it is not inherited. In many cases the inheritance may be traced to some disease of the brain in the parents or relatives, such as melancholia, or suicide; some coarse organic disease, epilepsy, or hysteria in the mother.

In cases where we can really make out some causal morbid condition the prognosis is better. When the symptoms are general, the patient complaining of peculiar sensations in the head or spinal cord, or sensory system of nerves the prognosis is worst. In most of these cases the disease is purely mental.

In the next lecture we shall consider melancholia.

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## ORIGINAL ARTICLES.

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### GERM THEORY OF CONTAGIOUS DISEASES, SURGICAL FEVER, AND PUTREFACTIVE GERMS; BEING AN INVESTIGATION INTO THE NATURE OF ABOVE PROCESSES, AND THEIR PREVENTION.

BY  
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Recent advances in biological science lead to speculations concerning the influence of minute living germs on the production of putrefaction, suppuration and septicæmia after operations, wounds, and



other solutions of continuity. The germ theory is destined, in my opinion, to work a revolution in former ideas of the origin of diseases of contagious and putrefactive character. This communication is intended as an humble contribution to the subject. It is possible that the ideas herein contained may have been elaborated, if so, they have escaped my notice. I simply will endeavor to suggest a means for preventing the spread of contagion, also a means of preventing putrefactive and inflammatory changes after operations, especially those operations which involve the opening of large cavities, and the more extensive of what are called capital operations. I will now illustrate the principle by quoting from Tyndall: "In a germ-infested air I will say the purest, contains them in larger or smaller numbers chop up a beefsteak, let it remain two or three hours covered with warm water, you thus extract the essence of the beef in a concentrated form, by properly boiling and filtering you obtain a perfectly transparent liquid. Have a box prepared, which is free from germs, all motes being excluded by filtering all the air that enters the box from without. Into the bottom of this chamber fit three or four test-tubes, perfectly clean, filled with the liquid, the tubes so arranged as to project externally from the bottom of the box. On opposite sides of this box fit glass windows accurately so as to be air-tight. The means used to render the air in the box and all that enters from without perfectly moteless—first varnish the interior with glycerine two days before the beginning of the experiment; fit into opposite sides of the box, an open tube, stoppered with cotton, wetted with glycerine, for entrance and egress of air. By allowing the whole to remain quiet for a time the motes settle, and, of course, adhere to the sides and bottom of the box.

By boiling the liquid contained in the test-tubes you destroy all germs which may have found entrance. If the experiment has been carefully performed, the beef-tea will remain clear and sweet indefinitely. Take some of the same solution and expose it in test-tubes to the open air of the same room after boiling, and after a number of days it will fall into rottenness, become turbid, and, under the microscope, will be found swarming with bacteriae and living moving germs, whereas, the former specimen from the box will be found clear, and destitute of germs or sign of life. To further clinch the experiment, expose some of the latter to the air of the same locality for a time, when it, too, will become putrid, swarming with bacterial life.

There is no difference between the air within and the air without the chamber, except that the former is moteless, and the latter laden with the dust which contains the germs of putrefaction ready to spring into life under favorable conditions.

In the light of such experiments it is simply monstrous to assume—as some have done—that these bacteriae are spontaneously generated.

"We now approach an aspect of the question which concerns us more closely, which will be best illustrated by an actual fact. A few years ago I was bathing in an Alpine stream; on returning to my clothes from the cascade, I slipped upon a block of granite, the sharp

crystals of which stamped themselves into my naked skin. The wound was an awkward one, but being in good health at the time, I hoped for a speedy recovery. Dipping a clean handkerchief into the stream, I wrapped it closely round the wound and limped back home, remaining four or five days quiet in bed. There was no pain, and at the end of this time thought myself able to leave the room. The wound when uncovered was found perfectly clean, uninflamed, and free from pus. Placing over it a piece of gold beaters' skin, I walked about all day. Toward evening, itching and heat was felt; a large accumulation of pus followed; I was obliged to take to bed again. The water bandage was restored, but it was powerless to check the **action now set up.**

"I was taken to Geneva, where my surgeon discovered an abscess in my instep five inches from the wound, communicating by a sinus through which the abscess was evacuated, without a resort to the knife.

"By what agency was that channel formed in the sound tissue of my instep, and kept me a prisoner for six weeks?

"In the very room where the water dressing had been removed and the gold beaters' skin applied, I opened this year, (1876) a number of tubes containing perfectly sweet and clear infusions of fish, flesh, and vegetables.

These hermetically sealed infusions had been exposed for weeks to the sun of the Alps, and the warmth of a kitchen, without showing the slightest turbidity or sign of life. But in two days after exposure to the air of the room, the greater number swarmed with the bacteriæ of putrefaction, the germs of which had fallen into the tubes after being opened in the dust-laden air of the room. And had the pus been examined, my memory of its smell and appearance leads me to infer that it would have been found equally swarming with bacterial life."

Mr. Tyndall then refers to the labors and successes of Mr. Lister, and proceeds to trace the analogy between contagion and a ferment, which latter is a cell growth from one single or a few cells to many millions, so with a particle of contagium it spreads throughout the human body, and may be so multiplied as to strike down whole populations. Consider the effect produced by the introduction of a microscopic quantity of the virus or ferment of small pox. Which virus is to all intents and purposes a seed. In Pasteur's experiments a bacterium always remained a bacterium. The vibrio a vibrio. The penicilium a penicilium, and the torula a torula; sow any of these in an appropriate liquid and you get it alone in the subsequent crops. In like manner sow small pox, and you get small pox, scarlet fever, your crop is scarlet fever, typhus or cholera, and the product is these diseases multiplied, in just the proportion in which they have soil for development, and the conditions favorable to continuance of these diseases, are exactly those which we need for propagating our putrefactive animalculæ.

We are living in an age of the world when old and long established dogmas and beliefs, which have the prestige of hoary ages, are being

swept away by the onward march of progress. Authority as such is of no value or of value only so far as it accords with reason, observation, and experience. The recent discoveries in biology and physiology, are changing our opinions concerning life and its origin.

Some here present may remember when diseases were thought to be the operations of divine judgment. We are gradually learning to trust to reason and observation in forming our opinions, recognizing the grand conception, universal reign of law. Apparent exceptions or contradictions only cover some deeper law.

The microscope, and experiments on living bodies of animals are gradually unveiling the processes of nature of development. By inoculating animals with diseases, we have a method of interrogating nature, which questions asked in a proper manner cannot fail to elicit satisfactory replies.

Let us all be encouraged to persistence in the study of science, in all those branches bearing upon our art. In opening this subject I can but barely touch upon these important questions. We cannot claim to have opened more than the title page of this great subject of contagion and putrefaction. But in calling your attention, we are opening a field which I am certain, will be most prolific of facts to investigators of to-day in natural history of diseases. And to students of the future, a field of marvelous promise for the benefit of our race.

"In 1850, the French observers Davaine and Rayer, noticed in the blood of animals dying with a virulent disease called "splenic fever" small transparent rods under the microscope. But neither of them attached any significance to the fact. In 1874 Burdon Sanderson gave a very clear account of what was then known of the above disease. The contagion had been proved to hang for years about a locality where it had once prevailed. This seemed to show that the rod like organisms, could not constitute the contagion as their infective power was found to vanish in a few weeks.

At this time a young German, Dr. Koch, studied the habits of the rod-like organisms. He found the aqueous humor of an ox's eye peculiarly suitable for their growth; with a drop of this he mixed a minute speck of blood from a diseased animal containing these rod-like bodies. Placing it under the microscope, warmed it suitably and observed its action. At the end of two hours the rods began to lengthen. At the end of four hours they had increased 10 or 12 times the length. At the end of 6 or 8 hours they had increased many hundred times the original length. At length he noticed little dots appearing at regular intervals along the rods. These developing until the rods became studded throughout with little oval bodies, which lay within an outer integument like peas within a shell. By and by this shell fell to pieces, in place of rods the field was taken by long rows of seeds or spores. Koch proved by this and further experiments that these spores, as distinguished from the rods constituted the virulently contagious elements of splenic fever. When these were dried they did not lose their contagious properties. These spores would produce the fever in its most deadly form. The name of this formidable par-



asite is anthracis. To produce its characteristic effect they must be introduced into the blood or lodged upon the surface of the nasal or bronchial mucous membrane.

The virulently infective spleen may be eaten by some animals with impunity. It is also impossible to inoculate dogs, sparrows, or partridges. The probable explanation is that in these the seed did not find the pabulum requisite to full development. A knowledge of the nature of this germ was necessary to stamping out the disease, which was accomplished by separation and destroying infected animals and purifying by disinfection the infected localities.

One item of statistics will show its prevalence. In the district of Novgorod, Russia, between '67 and '70—56,000 cattle were destroyed and 528 human beings perished with the same disease; symptoms were those of most the virulent type, destroying in a few hours."

It is not necessary that the germ should be conveyed in liquid, but becoming dry and floating in the atmosphere, being breathed in the lungs, they are competent to produce the characteristic symptoms.

The analogy is too close to be over-looked in studying the causes of other contagious diseases, for us not to be reminded, that we have good ground for the opinion that all may be due to the action of germs. Thus we see that as quarantine and disinfection, will certainly prevent the spread of contagion from patient to patient, may we not confidently hope, by preventing the entrance of germs into the lungs and blood, by a properly constructed filtering mask to yet witness the spectacle of a population walking about the streets of a cholera infested city, without fear of its infection however deadly.

Inasmuch, as a properly made cotton filter worn over the mouth and nose must shut out all atmospheric germs of the ordinary putrefactive kind. We may be confidently assured that those of disease will be equally excluded.

By making here a brief reference to my own experiments, I found that those tubes which were stoppered with cotton wool while being boiled, remained perfectly sweet and clear, while those remaining open soon swarmed with living bacteria and amœbæ.

I humbly trust that some lover of science and friend of his race will put this idea here advanced to practical account. It does not seem difficult for some practical genius to invent a cotton-wool respirator of sufficient fineness to exclude germs, yet to freely admit air for the uses of respiration. Then, at last, in the progress of years, the great problem concerning the practicability of stamping out contagious diseases would reach a solution. They would become extinct, because the conditions of existence were no longer present. Thus to scientists and physicians would belong the triumph of banishing forever those destructive enemies of mankind.

Having dealt rather fully with the origin of specific contagion, let me proceed to ordinary contagion, nearly everywhere present in the atmosphere, viz., the germs of putrefaction.

\* We often hear it said that an unsanitary locality is just as liable to escape fevers, etc., as one perfectly salubrious. The explanation is as follows: Specific germs go in clouds, and may strike one here, another

miles away, so making centres of contagion. The filthy locality may escape this specific influence, but the putrefactive products and germs they have always with them. When once specific germs arrive, they find a rich soil for their growth and propogation. But, when in this connection we remember how badly surgical operations and injuries with solutions of continuity are wont to do in an insalubrious atmosphere, we come to the aspect of our subject, which I now propose to consider and conclude. The germs everywhere present in the atmosphere, are competent to produce putrefaction. By adopting Mr. Lister's antiseptic method we will accomplish wonders: but it seems to me there is a defect here which could be remedied in a somewhat more rational manner. The idea which I wish to advance is simply this. Suppose instead of creating a germless atmosphere immediately around the wound, we should place patient, surgeon, attendants, nurses, etc., altogether in a room whose atmosphere is optically pure, without a germ. This can be accomplished in the following manner: At first, let me say, should it be objected, that this will cause a great deal of trouble. I would answer, should any of our great ovariologists be almost sure of making a successful operation in all but a small percentage of cases, would he think any amount of trouble in preparatory precautions excessive?

Nearly all the deaths from ovariectomy result from peritonitis or septicæmia. And did the operator not fear them, he would render his operation almost as successful as the ordinary minor operations of surgery—in other words, he would only have to fear shock, hemorrhage and certain accidents of injury to internal organs unavoidable in cases of adhesions, &c.

Now to our

#### "MODEL WARD."

Given a room, large, well lighted, warmed, when necessary, by fire-places, which, when not in use, should have their flues hermetically sealed. We must, as we proceed, keep in view that a solution of beef, fish, or vegetable, will remain perfectly sweet, clear, and under the microscope without living germs, when exposed to a filtered moteless air. This is exactly what we propose to do with our ward. All windows used for lighting are kept closed and hermetically sealed.

At one end, and outside of our ward we have established an engine for pumping air out of this ward. At the opposite end we have certain apertures filled compactly with cotton-wool, say enclosed firmly in a wire frame. As the air is removed by the engine, it is replaced by external air minus the motes. In order to make a more perfect filter of the cotton it may be moistened with glycerine. We will now have renewed the air in the ward. But there may be some germs remaining, so we will varnish the walls, floor, and every article of furniture with glycerine and carbolic acid, very strong. Now leave the room and air within perfectly quiet for three or four days when all the motes will have settled, the glycerine causing them to adhere and the acid destroying their vitality. Then the air of the room could be changed as often as necessary by the engine for purposes of ventilation.

An ante-room, to be used only by nurses, surgeons, &c., to be rendered moteless in the same way, in which the surgeon should change his ordinary apparel for clothing that had been exposed to an extremely high temperature, and if necessary, disinfected of all germs by acid. The instruments should be then and there subjected to solutions of acid. By not having one single unnecessary article of clothing, bedding, &c., in the ward, and those there should be subjected to thorough disinfection. They then might proceed to operation, confident that the conditions for excluding germs were far superior to those of Mr. Lester. And I am confident that results will, if the plan is rigidly carried out, be better than his, and moreover, this antiseptic method is applicable to cases in which the acid spray would cause so much irritation as to increase the risk of the operation without fairly preventing the entrance of germs from the surrounding air.

There are many details of course unnoticed in this article which suggest themselves to the operator, such as a thorough bathing of the patient, cleansing the nails, etc., which are not necessary to embody in this article, which may be looked upon as a proposition requiring the united action of some hospital organization, and not to be carried out by a single individual, unless endowed with more wealth than the generality of physicians.

The progress of hygienic science requires us to weigh well and make use of every means that will conduce to the improvement of health or prolongation of life. By laying much stress on germs, and contagions, I do not forget other factors, which must enter into our estimate when considering causes of diseases and death.

The purpose of this article was merely as a hint which would be enlarged on, and I hope to be brought into practical shape by those far better qualified than myself.

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## HOSPITAL RECORDS.

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### PRESBYTERIAN HOSPITAL, NEW YORK.

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Reported by ALBERTO LACAYO, M.D., House Surgeon.

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LACERATED WOUND OF HAND.—TRAUMATIC ANEURISM.—SERVICE  
OF DR. L. A. STIMSON.

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John McGowan.—Single.—Aet 27.—Ireland.—Speculator.  
Admitted October 28th, 1876.

*Previous History.*—On October 13th, the patient sustained a contused wound of the hand by the breaking of a bottle; one of the fragments cutting the palm of the hand, from the first web to the right of the middle finger of the right hand to a point about 1½



inches back. A week after the injury it began to bleed and continued to do so every day until his admission.

*Present Condition.*—On examination, the patient is found to be very anæmic from loss of blood. There was the wound of the hand as indicated above, and a slight oozing of blood—compression was exerted upon the bleeding points by pads of lint, held in place by a roller bandage.

*October 31st.*—Operation by Dr. L. A. Stimson. Patient was etherized, and the wound enlarged, when a small traumatic aneurism connected with the digital branch of the palmar arch branch to middle finger was detected. This aneurismal sac was removed, and the cut ends of the artery ligated. It was furthermore discovered that the internal lateral ligament of the metacarpo-phalangeal articulation of the index finger was cut, the flexor tendon being also severed. Amputation of the ring finger was taken into consideration; but it was thought advisable to give nature a chance, and see if she could not repair the injury. Lint saturated with carbolized oil was placed upon the wound, and the hand then tightly bandaged.

*November 1st, '76.*—The old dressing taken off, and a new one applied, the wound having been syringed out with a solution of carbolic acid.

*November 10th.*—The wound between the two fingers has almost completely healed. Patient's condition somewhat improved. The palmar wound has diminished in size, owing to the contraction of the tissues, but there are very few granulations covering it. That portion of the inter digital wound, extending upwards upon the dorsal surface, is healing nicely. The dressings are changed every two or three days.

*November 28th, 1876.*—The dorsal wound is diminishing in size. It is injected daily with a solution of carbolic acid, and lint applied over the surface of the wound. Patient's health improving. Passive motion is resorted to daily. Ordered Hydrarg. Bichlor. gr.  $\frac{1}{8}$  t. i. d.

The ring finger is perfectly useless, there being no motion in it at the metacarpo-phalangeal articulation.

*December 5th.*—The wound upon dorsum of hand is contracting.

*December 9th.*—Patient at his own request was discharged, with all the wounds, except that of the palm, healed up, with the understanding that should he feel disposed to have his finger amputated, he would return to the hospital.

## PERISCOPE.

## COLLABORATORS.

*Dermatology:*  
HENRY G. PIFFARD, M.D.  
*Diseases of the Nervous System:*  
EDWARD C. SEGUIN, M.D.  
*Diseases of Women and Children:*  
FRANK P. FOSTER, M.D.  
*General Surgery:*  
EDWARD J. BIRMINGHAM, M.D.

*Practical Medicine:*  
E. DARWIN HUDSON, JR., M.D.

*Genito-Urinary Disease and Syphilis:*  
ROBERT W. TAYLOR, M.D.  
*Materia Medica and Therapeutics:*  
FREDERICK A. LYONS, M.D.  
*Ophthalmology and Otology:*  
SAMUEL B. ST. JOHN, M.D.  
*Orthopedic Surgery:*  
NEWTON M. SHAFFER, M.D.

ABDOMINAL TUMORS AND THE MICROPHONE. BY CLEMENT DUKES, M.D., B.S., LONDON., M. R. C. P., *Physician to Rugby School and Rugby Cottage Hospital.*

The following negative evidence of the use of the microphone in the isolation of pregnancy, when we have an unknown abdominal tumor, may be of interest to some members of the profession.

Mrs. L., aged 38, residing in Rugby, called on me on June, 11th 1878, saying she was afraid that she had a tumor in her abdomen. She had had one child ten years ago, which died, and she was so extremely anxious to have another child, that I rather suspected to find a phantom tumour. I arranged to see her next day in bed; and, on examination, immediately heard the placental murmur, and presently the foetal heart. Thinking that I should only have a phantom tumor, it had occurred to me whether the microphone could give me any assistance in diagnosis; having, however, found all I needed with my stethoscope, I was not to be deterred from trying to see if the microphone could aid me still further, and so be of use in the diagnosis of doubtful tumour cases.

Accordingly, on the evening of June 17th, 1878, my friend Mr. G. M. Seabroke, accompanied me to my patient with his microphone, which we applied, with this result.

1. We heard distinctly the placental murmur.
2. We could not hear the foetal heart, owing to the movement of the abdomen in respiration making too much sound in the microphone; and, even when the breath was held, it was still disguised, I believe, by the muscular contractions necessary to fix the abdominal walls.
3. On applying the microphone over the heart and to the radial artery, we heard them distinctly.

To-day Mr. Seabroke very kindly made an exquisitely sensitive modification of the microphone, which resembled the end of the stethoscope, and could be placed in any position, horizontally or vertically, and which could therefore, be much more easily manipulated and applied accurately to the abdomen; still, we were unable to hear the foetal heart owing to the sounds caused by respiration, though they could be well heard with the stethoscope.

## ENTEROTOMY.

Dr. Von Langenbeck, at the late Congress of the Society of German Surgeons, showed a patient on whom he had performed enterotomy last May, and who wore an India-rubber bladder as an obturator to the artificial anus. He called attention to the importance of providing a sufficient closure for the new opening. In a case of colotomy, performed on a child for absence of the rectum, and which was in other respects successful, death had occurred from prolapse of the intestine, in consequence of the want of a proper obturator.

Dr. Trendelenburg [Rostock] had performed enterotomy three times, and considered it much less dangerous than colotomy, in consequence of the injury to the soft parts being less. For the closure of the fistula, remaining after gastrotomy, he recommended a drainage-tube provided with a stop-cock, which could be fixed securely in a perpendicular direction by means of a ring of cork.

Dr. Czerny [Heidelberg] thought that, independently of the connection in size between the prolapsed portion of bowel and the opening, the prolapse was always absent, or very small, when there was adhesion of the serous membrane above the opening.

Dr. Von Langenbeck said, in order to prevent misunderstanding, that in the case of the child to which he had referred he had not performed Amussat's operation, but had opened the flexure of the colon. He had made the opening very small, and he believed that the prolapse was the result of invagination. A means of preventing prolapse, not attended with danger, but certain in action, was the use of a plug to be inserted into the intestine. One of his patients had for some years used this plan with success.—*Lond. Med. Record*, May 15, 1878.

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TREATMENT OF SORE NIPPLES.

Dr. Haussman *Berlin Klin. Wöchschrift*, No. 14 recommends the application of five per cent. solution of carbolic acid for producing a speedy cure of fissured nipples occurring in women after confinement. He reports a case in which both nipples being thus affected, sucking was almost impossible. Nitrate of silver and lead lotion had been applied in vain to several small ulcers and numerous fissures. Strips of linen, saturated with the carbolic acid solution, were then ordered to be placed over the nipples, and renewed every two or three hours, the dressing being removed and the parts carefully cleaned before the child was put to the breast. The first application was followed by considerable diminution of the pain; on the following day the fissures were found to be reduced in size, and the excoriations had disappeared. Two days afterwards the woman was able to suckle her child without difficulty, the fissures being completely healed, and there was no return of the symptoms. In another case a weaker solution was tried, but the effect was not satisfactory. A few applications of the five per cent. solution sufficed to produce a cure.



The acid causes less pain than nitrate of silver.—*Med. Examiner*, April 25, 1878.

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#### SMALLPOX IN THE PREGNANT WOMAN AND IN THE FŒTUS.

Dr. W. M. Welch, physician to the Philadelphia Small Pox Hospital, contributes to the *Medical Times* (May 25, 1878), an extremely interesting paper on this subject, based on a study of forty-six cases. He sums up his conclusions as follows:

1. Smallpox in the female disturbs with striking frequency the functions of the womb, giving rise in the non-pregnant woman to premature appearance of the menses, and, in the pregnant woman, frequently exciting abortion.
  2. Abortion is a very serious complication of smallpox. The earlier in the course of the disease it occurs, the more serious is the complication.
  3. The fœtus does not generally undergo smallpox in utero, although occasionally such may be the case.
  4. When a pregnant woman undergoes smallpox without miscarriage occurring, the susceptibility to the disease in the infant is not destroyed.—*Am. Jour. Med. Sciences*, July, 1878.
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#### PARTIAL EXCISION OF SPLEEN.

Dr. A. A. Faris reports (*Am. Practitioner*, May, 1878,) the case of Davis B., aged 36, of strong frame, but somewhat debilitated by reason of malarial fevers and their sequelæ, having also a much enlarged spleen. Whilst engaged in a fray that occurred on the first of Feb., 1874, he was cut with a knife, the blade of which was four inches long and three-fourths of an inch broad. Dr. Faris saw him soon after the injury, and found him suffering with two penetrating wounds of the left breast—one entering the lung through the third intercostal space just above the nipple, and the other through the second space near the sternum; also two wounds of the left arm—one through the upper third of the upper arm, the other through the ulno-radial in the middle of the lower arm. There was also an incised wound, commencing one inch above the ant. sup. spinous process of the left ilium, extending upwards and backwards three inches, through which protruded a portion of the spleen, with a piece three inches long and one inch wide (in the center cut from its lower border, and hanging by a slender pedicle. Hemorrhage had been arrested by forced flexion of the thigh, not until much blood had been lost however.

Dr. Faris cut off the partially detached portion of the spleen, pressed the edges of the wound firmly together, and carefully pushed the spleen inward, until the cut surface was level with the integument; then with a large curved needle, sewed the spleen and the walls of the abdomen together, compressing them tightly with quill sutures, afterwards approximating, as near as he could, the edges of the in-

tegument over the cut surface of the spleen with a small silk suture. The wounds healed kindly, and the patient is now enjoying good health.—*Am. Jour. Med. Science*, July, 1878.

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## NEWS ITEMS AND NOTES.

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**Treatment of Ununited Fracture.**—Mr. Fitzgerald, surgeon to the Melbourne Hospital, in view of the unsuccessful results attained by the milder and severer remedies commonly used in treating this troublesome accident, strongly advocates the injection of glacial acetic acid, 5 to 10 minims, by means of the hypodermic syringe, between the ununited ends of bone. His experience of this method of treatment has been uniformly successful. It is attended by sharp pain at first, but this quickly subsides. Any cartilaginous thickening that may be present is soon resolved and reabsorbed, and bony union takes place rapidly, a position of the ends of the bone being secured by well applied splints.—*Med. Press and Circular*.

**Hare-lip and Cleft Palate in the Negro.**—In reply to the inquiry whether hare-lip occurs in the negro, and if it occurs, whether it is not rarer in him than in the white race. Dr. Middleton Michel, Prof. of Physiology and Histology in the Med. College of the State of South Carolina, contributes (*Charleston Med. Jour. and Review*, July, 1876,) an interesting paper, in which he has collected the notes of thirty-two cases of congenital hare-lip and cleft palate in the full-blooded negro, and he does not believe that the defect is rare among them. He also shows that hare-lip occurs in the lower animals, and that this malformation does not depend upon mal-nutrition, but is the result of an inexplicable deviation of cell-genesis.—*Am. Jour. Med. Science*.

**Sulphuric Acid as an Antidote to Carbolic Acid.**—Dr. Lenfleben (*Deutsche Militärärzt. Zeitschrift*, Heft 1, 1878), recommends sulphuric acid as a remedy for the toxic symptoms produced by carbolic acid. The poisoning is produced by the presence of phenol in the blood. He says that sulphuric acid, combined with this, produces sulphocarbolic acid, which is innocuous. He has treated several cases successfully on this principle. The mixture which he uses is: Dilute sulphuric acid, one part; gum water, two hundred parts; syrup, thirty parts. One tablespoonful to be taken every hour.—*London Med. Record*, May 15, 1878.

**Fatal Pistol-Shot without Perforation of the Skin.**—Dr. Hofmann (*Lehrbuch der Gerichtl. Medizin*, 2 Band, Wien, 1878), relates the following remarkable case: A man, aged 40, fired a pistol-shot at himself in the region of the left breast. A skin-burn resulted of the size of the palm of the hand, but no rupture of continuity of the external skin. Beneath this there was an effusion of blood; the

costal cartilage was broken. In the pericardium lay a pound and a half of blood, and at the apex of the heart, on each side of the longitudinal fibres extending into the cavities of the ventricles.—*British Med. Journal*, March 16, 1878.

**Treatment of Hydrocele by Electricity.**—Signor Macario reports (*Gaz. Med., Ital., Lombard*, No. 36, 1877) two cases of hydrocele treated by a single application of an electric needle, for the space of one minute. One of these cases was permanently cured; the other was only temporarily cured, the disease returning after ten months. In both instances the fluid entirely disappeared in the course of twenty-four hours, though no fluid escaped through the wound made by the introduction of the needle. Macario recommends the employment of this method in other kinds of cysts, especially for ovarian cysts, and cites three cases that have been published as cured by this means.—*Practitioner*, May, 1878.

**A Novel Urinal.**—Dr. Packard, of Philadelphia, has lately attended a lady suffering with a large abscess, where the use of the bed pan for micturition was impossible, and catheterism annoying, when the patient herself suggested the following expedient: She had a large coarse sponge enclosed in an oiled silk bag, and applied to the parts; it absorbed the urine perfectly, kept the bed dry, and contributed greatly to the comfort of the patient. He has since used the plan in other cases, with much satisfaction.

**Counterblast against Opium Smoking.**—A recent edict of the Chinese Government speaks of the people as foolish, coveting wealth, and forgetful of the injury that is being done by the cultivation of the poppy instead of cereals, and it enacts that for the future the cultivation of the noxious drug must cease; disobedience thereto to be visited with severe punishment. This edict applies to the whole of China. The district magistrate of Tientsin has personally visited the opium-smoking resorts, and closed them all. Soldiers and officials are strictly prohibited from smoking, under heavy penalties.—*Med. and Surg. Rep.*

**Superiosteal Excision of the Entire Scapula and Head of the Right Humerus; Recovery.**—Dr. Charles B. Brigham, of San Francisco, reports (*Boston Medical and Surgical Journal*, April 11, 1878) a case of this. The operation was performed on account of necrosis. The scapula was excised by a single incision along the spine. The bone came away entire. The patient can now one month after the operation put his right hand to his left shoulder unassisted; he can move his arm backwards and forwards an inch in each direction, and has full use of the right hand in writing, eating and in all the ordinary movements.—*Am. Jour. Med. Science.*

**Ergot for Typhoid Fever.**—Sireday (*La France Médicale*), following up the observations of Duboué, used ergot in an exceedingly grave case of ataxo-adyynamic typhoid, in which the patient on the twelfth day was delirious, had twitching of the tendons, hyperæsthesia,



opisthotonos, etc. He gave two grammes of ergot in 24 hours. The next day the amelioration was notable; the treatment was continued with the medicine for three days, and the patient recovered.

**Bismuth in Prolapse of the Rectum and Severe Hemorrhoids.**—Dr. Cland (*Gaz. de Napoli*), recommends a teaspoonful of bismuth, mixed with a little water and powdered starch, to be introduced into the rectum (after reduction of the prolapse) in such cases.

**Child Poisoned by the Nicotine of an Old Pipe.**—Thomas (*Brit. Med. Jour.*) describes a case of this kind, in which a child of three years of age died with all the symptoms of tobacco poisoning after playing with an old pipe.

**Chloral in Retention of Urine.**—Tidd (*Gaz. Med. de Roma* and *La France Médicale*) publishes a case in which catheterism having failed in consequence of the patient being pregnant, and no urine having passed for twenty-four hours, two doses of 10 grs. one half an hour after the other, produced profound sleep, and involuntary passage of an enormous quantity of urine.

**Galactorrhœa in Old Women.**—Caso (*Inapend. Med. de Barcelona* and *Courrier Medical*) has observed two cases, one in a woman of 65 years, who, during her earlier life had had five children, and who had ceased to menstruate ten years before. Although so old, she felt very lively erotic desires. The flux was stopped by ergotine. The second case was in a woman of fifty, affected with cancer uteri. The milk in both cases appeared normal in character.

**Indigo in Obstinate Infantile Diarrhœa.**—Jages of Guanajuato (Mexico) has found (*Journ. de Therap.*) "the vulgar remedy" exceedingly efficacious in these complaints. The dose of the indigo anil he gave was forty to fifty centigrammes, in a little sugar and water.

# THE HOSPITAL GAZETTE

AND

ARCHIVES OF CLINICAL SURGERY.

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EDITED BY

EDWARD J. BERMINGHAM, M.D., and FREDERICK A. LYONS, M.D.

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[The editors hold themselves in no way responsible for the views expressed by contributors.]

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## LECTURES.

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### A LECTURE ON THE TREATMENT OF FACE PRESENTATIONS.

Delivered before the Medical Class of the University of Pennsylvania.

BY

R. A. F. PENROSE, M.D.,

Professor of Obstetrics and of Diseases of Women and Children.

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[REPORTED FOR THE HOSPITAL GAZETTE.]

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Face presentations are quite rare, occurring only about once in every two hundred and thirty cases of labor. Strange to say, there still exists among obstetricians of distinction the greatest diversity of opinion with regard to their proper treatment. Some authorities hold that face presentations are cases of unnatural labor, and as such demand prompt interference; while others assert that they are cases of natural and easy labor and require no assistance. One well-known writer, in discussing face presentations, and after describing the mechanism, says: "All of which takes place with no greater difficulty than in an ordinary cranial position."

In describing for you an original and most important principle in the management of face presentations, it becomes necessary for me to state to you that my experience of many cases has led me to differ altogether from the view quoted above. I hold that a face presentation is much more difficult and much more dangerous than "an ordinary cranial position"; and that there is no more analogy between a face and a vertex presentation, either in mechanism or in any other respect, than there is between a trunk presentation and "an ordinary cranial position."

The most favorable diameters present in a vertex presentation—the diameters of the occipito-bregmatic circumference, three and a half inches in each direction. Where the presentation terminates by the

anterior rotation of the occiput, there is the perfect and complete co-operation of all the parturient forces to accomplish the expulsion easily and safely.

In a face presentation the conditions are altogether different. Let us assume a case where the chin offers toward the right acetabulum. The cranial diameters, indeed, though different, possess precisely the measurements of the diameters concerned in a vertex presentation. How is it, then, that there is no analogy between the two? In the first place, there is not the slightest resemblance in the mode of action of the propelling forces. The advancing occiput receives in a direct line, in vertex presentations, through the spinal cord, the parturient forces. In a face presentation, the head being completely extended, the force of the parturient actions is communicated to the advancing face through the cervical vertebrae, bent at a right angle. So it happens that the face instead of being propelled promptly by well-applied and well-directed force, is rather made to advance slowly and uncertainly, by being dragged after the neck.

Again, the occiput, in a case of vertex presentation, easily and speedily reaches the floor of the pelvis, where it usually meets the force of resistance, and an anterior rotation is secured. The very reverse is witnessed in a face presentation. In the position I have assumed as an example, where the chin presents towards the right acetabulum, it cannot possibly reach the floor of the pelvis at the lateral or posterior part of the pelvic cavity, but can only descend as far as the length of the child's neck an inch and a half will permit. Evidently there can not be the slightest analogy between face and vertex presentations. The face, having descended into the pelvis as far as the length of the neck permits, necessarily can advance no farther; the head is arrested and labor can only terminate spontaneously by the chin coming to that part of the pelvic cavity, where the child's neck is long enough to reach from the superior to the inferior strait. In the majority of cases of face presentation this essential anterior rotation of the chin ultimately takes place. If rotation should not occur, labor becomes impossible, save in cases so rare and exceptional that they are not to be expected.

The strong point which I wish to make is this. Face presentations are almost always tedious, sometimes very painfully so, occasionally fatally so, because the face cannot, except in a very few rare cases, reach the floor of the pelvis, where alone it can receive that complete force of resistance which secures ready anterior rotation.

In all cases of mento-anterior positions, the assistance which I advise is the following. As soon as the mouth of the uterus is dilated, and the face has fairly engaged, apply the hand, the lever, or the blade of the forceps to the posterior cheek, in other words, bring artificially, a force of resistance to bear on the face, inasmuch as the face, for the reason I have already given, cannot secure this force of resistance from the tissues at the pelvic floor, as the vertex does in vertex presentations, and therefore the chin does not rotate, or does so slowly and uncertainly, to that part of the pelvic cavity where a spontaneous termination of the labor is alone possible. If the medical



attendant apply this force of resistance at the time and in the manner I have just shown, rapid rotation will be secured, and the labor will terminate speedily and safely. If this artificial force of resistance be not applied, then nature may terminate the case spontaneously, but not until many hours of suffering and danger for both mother and child, have passed.

Face presentations are never to be trusted to nature. In mento-posterior positions (mento-anterior cases I have just described) we have one of the gravest conditions in obstetrics to deal with. Anterior rotation of the chin is possible under these circumstances, and yet improbable, so that we must not at all expect it and should treat the case as one of impossible labor by performing craniotomy, etc. If seen in time I am sure that the safest and best treatment is to resort to version by the vertex, or by the feet. Both of these methods of procedure, however, must be restricted by the conditions which I have just laid down; that is the presenting face must not have passed the mouth of the uterus; should it have done so, version, either by the vertex, or by the feet, involves such great risks of laceration, that I consider it entirely unjustifiable. I cannot endorse a mode of treatment quite lately proposed, which consists in placing the woman under complete anæsthesia, and then converting the impossible mento-posterior position of the face into a natural occipito-anterior position of the vertex by forcibly flexing the head. I have twice known forced version, performed in this way to cause speedy death in consequence of laceration of the uterus. If the presenting face, therefore, has passed the mouth of the uterus, version of any kind cannot be safely attempted. An endeavor may then be made to force a rotation of the chin to the symphysis pubis, either by the forceps, by the lever, or by placing the finger in the mouth. Under no circumstances should the forceps be used to try to deliver the head, with the chin to the sacrum.

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## ORIGINAL ARTICLES.

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### HYDRO-TYMPANUM.

BY

J. OSCROFT TANSLEY, M.D.,

Assistant Surgeon to Manhattan Eye and Ear Hospital; Visiting Surgeon to North Eastern Dispensary, Department of Eye, Ear and Throat, etc.

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The following case was to me very interesting, because of the fact, that it seemed to prove, there can be a negative non-inflammatory exudation of serum into a mucus cavity, in a similar way, and from similar causes, that we have a like condition established in a serous cavity, as in hydropericardium, and hydrothorax.

It is the only case of the kind that I have yet met, but I find upon examining the literature that there are several cases reported, and I am led to give the case in full from the fact that those previously writing upon the subject, have failed to give the condition a name.

All aurists admit, and recognize otitis mucosa, otitis serosa, otitis hæmorrhagica, and otitis suppurativa; but these all have the elements of inflammation, and give the phenomena of tenderness, pain, heat, and redness. We occasionally meet cases where there are perforations of the membrana tympani, and a secretion of pus in the middle ear, and we call it otitis suppurativa; but we have no history of pain or tenderness, and often none of discharge, yet upon examination there are abundant evidences of inflammatory action. It is somewhat difficult, I admit, to account for these cases, and I cannot see how they are brought about, excepting by a necrotic action in the membrana tympani, from lack of vitality, and the subsequent production of pus. These conditions, when found, are usually in strumous, and phthisical patients; the tendency being here to waste rather than repair, and having, as we do, a thin, delicate membrane, it seems to melt away, as though it had not the nutritive energy to sustain itself.

A similar condition is sometimes seen, to be present, in the cornea of patients having this same general diathesis. Some may argue that if we can have an inflammatory formation of pus, and rupture of the membrana tympani without pain, why cannot we have a *non-painful* but inflammatory otitis serosa, and this is really a pertinent question, and undoubtedly this condition is sometimes present where we do not get the history or symptoms, but *do* get the evidence of otitis serosa, as tenderness, redness, and inflammatory appearances. There seem to be great variations in patients as to their susceptibility to pain, and discomfort, and also to the effects of disease. We often see patients prostrated, weak, and anæmic, with no appetite, and unable to do the slightest duties, yet who have but the very earliest evidences of phthisis. On the other hand, we see patients ruddy, apparently robust, eating heartily, and daily doing a man's labor, yet we find evidences of phthisis in the third stage, with large cavities. Again, we have patients complaining greatly of their eyes, and we are led to suspect large errors of refraction, but find the sole cause to be a very slight catarrhal conjunctivitis; on the other hand, we see parties who complain but little of their eyes, yet the conjunctiva is velvety, and almost granular in its condition.

In these cases there is, or is not, the history and symptoms of inflammation, but the examination gives at once the true condition. The point that I desire to raise is that, though undoubtedly there are many cases of non-painless otitis serosa, there are cases which are non-inflammatory in their character, and for which the above name will not answer.

The case I desire to give is as follows:

Monday, April 23, 1877.—Mrs. M. A. G——, aged 60 years, of very anæmic appearance, but having no phthisical tendency, came to Manhattan Eye and Ear Hospital for treatment of her ears. She has suffered from bleeding hemorrhoids for a long time, and for the past month or more has had a diarrhoeal difficulty superadded. She complains of deafness, which is increasing; has a feeling as though something was in the right ear, and says that when lying down on the right side can hear much better, but has a sensation of "muffling" as

soon as she occupies the erect position. History is that of increasing deafness, but without the slightest indication of pain or unpleasant sensations other than those mentioned above.

She went to the Homœopathic Eye and Ear Hospital for treatment about a month ago, was there given some medicine, and has been under the observation of the surgeons of that hospital ever since, but with no appreciable benefit.

*Examination.*—H. D. R. =  $\frac{P}{72}$ . H. D. L. =  $\frac{12}{72}$ .

Left ear is affected with Otitis Media Catarrhalis Chronica, and is in the prolifero-sicca condition. The membrana is drawn very much inwards; short process very prominent; the manubrium mallei foreshortened, and the light spot is small, broken, indistinct, and hardly to be seen.

Right ear, at first glance looks almost normal, and is bright, and shining, the light spot nearly normal; the membrana is not sunken or displaced in the least, no redness, and, in fact, nothing to call one's attention to it as being diseased, other than that it does not look as the membrana of a person sixty years of age should look, but more like that of a child, say five or six years old. It gives me the impression of fluid being behind the membrana, thus rendering it more transparent, and preventing the contractions, which I would naturally expect to find present after examining the left ear, or in membrana of this age.

I politizerised, which was accomplished very easily, but without obtaining any benefit; and being very busy, I told the patient to call at my office the next day.

April 24.—I examined the ear carefully under artificial illumination, and found the membrana exactly as described yesterday. I politizerised, and then examining again I saw changes in the membrana in two situations, which gave me the impression of being, either air bubbles in a watery liquid, resting against the membrana, or drops of mucus blown, and resting upon the membrana tympani. I cannot say which, but am positive it is one of these conditions; and my diagnosis is that of a negative exudation of serum or sero-mucus into the middle ear.

As the patient had been sent to Dr. Webster, who transferred her to me for treatment, I preferred to consult Dr. W. before performing paracentesis membranæ. My treatment will be tonics, and paracentesis, and the keeping up of a gentle irritation of the membrana, and tympanum by the puncture, or other means if necessary.

Given, R

Ferri et quiniæ citratis, . . . 3 i.

Tinct. nucis vomicæ, . . . 3 ij.

Tinct. gentianæ comp. *ad.*, . . 5 jv.

Misce. et signa cochleare minimum ter. in die.

Told to live generously, using milk, eggs, beef, etc., be sparing in the use of tea, and coffee so far as consistent with former habits, and take daily out-door exercise proportionate to her strength.

April 27th.—Dr. Webster agreeing that paracentesis was indicated, I made a puncture in the lower anterior quadrant, and directing the



patient to Valsalva, a large quantity of serum was evacuated, enough to run along the floor of the canal, and trickle down the patient's cheek. She being weak from her diarrhoeal, and hæmorrhoidal troubles, nothing more was done but to politzerise, H. D. R. =  $\frac{2}{72}$ .

April 28th.—Patient came to the office and said that after the operation of yesterday, her hearing had very much improved, and while sitting in her room, had heard her small clock tick with her right ear, a thing she had been unable to do for some time before. I found the puncture closed and more serum in the tympanum, but inasmuch as she had slight pain in the ear, I decided not to puncture again lest a too violent inflammation should be started up. After politzerisation H. D. R. =  $\frac{2}{72}$ .

April 29th.—The hearing is, to-day, nearly as bad as when she first came under my observation. I again punctured the drum, and let out considerable serum, with improvement similar to that of Friday. I find considerable difficulty in puncturing because of the lax condition of the membrana, as it gives away before the point of my knife. After politzerisation H. D. R. =  $\frac{2}{72}$ .

April 30th.—H. D. R. =  $\frac{2}{72}$ . Punctured, and by valsalviating, considerable serum was forced out, though less in quantity than at previous punctures. After politzerisation H. D. R. =  $\frac{8}{72}$ .

May 1st.—Has had one or two twinges of pain; the membrane is slightly reddened about the situation of the puncture; H. D. R. before polit. =  $\frac{8}{72}$ .

May 2nd.—There is seemingly more serum in the tympanum; but no redness or pain H. D. R. before polit. =  $\frac{4}{72}$  after =  $\frac{7}{72}$ .

May 3rd.—H. D. R. =  $\frac{3}{72}$ . Punctured, and by the politzer method ten or fifteen drops of serum was forced out. H. D. R. =  $\frac{6}{72}$ .

May 6th.—There is slight redness of the membrane, and seems to be little if any serum in the tympanum, H. D. R. before polit. =  $\frac{4}{72}$  after =  $\frac{6}{72}$ .

May 17th.—No serum in the tympanum and the membrane looks well, and more natural, that is, more as one would naturally expect.

H. D. R. before polit. =  $\frac{14}{72}$  after =  $\frac{24}{72}$ .

" " " " " =  $\frac{25}{72}$  " " =  $\frac{24}{72}$ .

June 15th.—The patient has called at my office quite a number of times since my last note, but I have made no memorandum of her condition, or hearing distances, as all that I have done has been to politzerise, and keep her on the tonic treatment. She has had no return of the serum in the tympanum, and I have done no puncturing; her hearing distance now is R =  $\frac{28}{72}$  L =  $\frac{25}{72}$  and this seems to be the best I can do as the otitis media catarrhalis chronica now interferes with further benefit, and as she is desirous of entering the New York Hospital for treatment of her hæmorrhoids, I have told her that I will renew treatment of her ears at some future time should she so desire.

The patient has never called upon me since, and it is fair to presume that her ears have not again troubled her. Now, what is this case, is it otitis serosa? I think not, unless we desire to give one name to two affections.

Otitis Serosa is an acute, painful, and inflammatory affection, and may be likened to pleurisy, or pericarditis, with effusion, and our therapeutics is to lessen the inflammatory action; but this case is non-inflammatory, non-painful, and nothing but a negative exudation of serum, from weakness and anæmia, or hydræmic condition of the blood, and loss of tone of the vessels of these parts, and the therapeutics is tonics, and not *counter* irritation, but irritation of the parts that are themselves concerned; in the same way that we would puncture, and irritate the sack of a chronic hydrocele. I look upon the case as being of the same nature, and as having the same conditions present as hydrothorax, and hydropericardium, and this being the case I would dub it hydro-tympanum.

Profoundly affected by this disease, and in a condition other than, "Serous accumulation in the tympanum," and under this heading have been grouped the inflammatory, and non-inflammatory cases. A. H. Buck, in the Record, gives two cases, one of which is inflammatory, and the other non-inflammatory in its nature: the former he saw but once, and the latter he punctured several times. The cause in the latter case, he imagines to have been closure of the eustachian tube, absorption of the air, creating a vacuum, and the serum exuding to fill it. If this was the case, why do we not have more of hydro-tympanum cases, for closure of the tube is very common.

Moos, in Archives of Ophthalmology and Otology, 1870, gives seven cases; three of which are evidently inflammatory and the four remaining non-inflammatory. His attention is only directed towards the diagnosis and treatment.

The causes are many, and various, and I apprehend, rarely singly, but are united as causative, and predisposing. We may have the inflammatory exudate from stasis or interference of the return circulation; closure of the eustachian tube; hydræmic condition of the blood; interference with the return circulation, by increased disposition, of connective tissue in, and beneath the mucus membrane, as is the case in chronic catarrhs, etc., etc., but I think it useless to theorise, as to causes and only necessary, practically to recognise two divisions, of the condition of serum in the tympanum, one inflammatory, called otitis serosa, the other non-inflammatory which I call hydro-tympanum.

#### NOTES.

A. H. BUCK, M.D.—Medical Record "Cases Illustrating some of the more unusual forms of Ear Diseases."

VOLTILINI—Virchow's Archives, and Examinations of the Ear in the Cardarva. Breslau, 1862.

POLITZER—Diagnosis, and Treatment of accumulation of Serous Fluid in the Tympanum, Vienna, Medicinische Wochenschrift, 1867, No. 16.

POLITZER—Wiener Med. Presse, 1869.

MOOS—Serous Accumulations in the Tympanum in Archives Ophthal., and Otology, 1870.

ZANFAL—On the presence of Serous Fluid in the middle Ear in *Archives fur Ohrenheilkunde*, 1869.

ZANFAL—Paracentesis of the drum head, in 1871.

FITCH—"Paracentesis, Tympani in." *Chicago Medical Examiner*, 1871.

MILLINGEN—"Accumulations of Serum in the Tympanic Cavity" in *Medical Times and Gazette*, 1871.

## HOSPITAL RECORDS.

### ROOSEVELT HOSPITAL, NEW YORK.

Reported by C. T. BUFFUM, House Surgeon.

#### FRACTURE OF BASE OF SKULL.

John Murray.—Married.—Aet. 40.—Ireland.—Painter.

Admitted March 30th, 1878.

2 P. M.—While intoxicated fell a distance of twelve feet from a ladder. There was hæmorrhage from nose and left ear. While being removed in ambulance to the hospital he vomited a quantity of undigested food.

*On Admission.*—Patient comatose; pupils even, normal. Nose and left ear bloody. Vomited four or five times.

*March 31st.*—Patient cannot speak. When shaken he seems annoyed, opens his eyes, moans, and tries to move away. Has had some hæmorrhage from left ear.

A. M.—Pulse 94; Temperature  $100\frac{1}{5}^{\circ}$ .

P. M.— " 94; "  $100\frac{3}{5}^{\circ}$ .

*April 1st.*—Condition about the same. Is induced to swallow only with great difficulty. Slight right facial paralysis.

A. M.—Pulse 64; Temperature  $98\frac{4}{5}^{\circ}$ .

P. M.— " 54; " 100.

Urine acid. S. G., 1024, Neg.

*April 2nd.*—Has vomited a little, but has not been able to speak more than a few words.

*April 3rd.*—About the same. After taking Rochelle salts bowels moved freely. Passes his urine in bed. Growing worse. His limbs have been somewhat flexed since admission. Seems more stupid than yesterday. Dr. Weir ordered Emplast. vesicans, also Hydrarg. Chlorid. Corrosivum gr.  $\frac{1}{4}$  t. i. d. hypodermically. Sordes on teeth and lips. Eyelids covered with a thick secretion. Breath excessively foetid. Respiration stertorous.

R Hydrarg. bichlorid, gr. vj,  
Aq.,  $\frac{5}{8}$  i.

M.

M. xx, hypodermically, t. i. d.

*April 5th.*—Condition slightly improved. Less stertor.

A. M.—Pulse 60; Temperature  $99^{\circ}$ .

P. M.— " 68; "  $100\frac{2}{5}^{\circ}$ .



*April 6th.*—Mercurial given regularly, t. i. d.

*A. M.*—Pulse 88; Temperature  $99^{\circ}$ .

*P. M.*— " 134; "  $99\frac{4}{5}^{\circ}$ .

Patient seems to be failing.

*April 7th., A. M.*—Pulse 116; Temperature  $100\frac{1}{5}^{\circ}$ .

Profound coma. Sordes abundant. Breath very foetid.

*12 M.*—Involuntary evacuations continue. Removed to a dark room. Breathing becoming more stertorous.

*6 P. M.*—Profound coma. Breathing markedly stertorous and irregular, with an occasional stop, followed by a long inspiration and stertorous breathing again begins. Pulse 124; Temperature  $101\frac{4}{5}^{\circ}$ .

*April 8th, 5.30 A. M.*—Died.

*Autopsy.*—There was a fracture of the right temporal bone, extending into the middle ear, without displacement of the bone. Beneath this there was a large clot, between the bone and duramater. Between the dura and pia mater was a thin clot. The parietal lobe of the brain was compressed by these two clots. The lower part of the right temporal lobe was lacerated and mixed with blood.

#### STRICTURE OF THE URETHRA.

Henry Piolle.—Aet. 29.—Single.—France.—Baker.

Admitted February 22nd, 1878.

The first of several attacks of clap occurred several years ago, and two years after this patient first had trouble in micturating. The difficulty increased until 1871, when, after an attack of retention, he entered a hospital in Germany and was treated for stricture. This was followed by relief for three years, but after that the old symptoms of stricture returned, increasing up to the present time. Never injured himself. Never had syphilis or chancre.

*On Admission.*—Stricture found, four inches from meatus, only admitting No. 7 French bougie. Stricture is long, dense, and readily felt by finger, as an induration along the urethra. Passes his water in small amounts, and there seems to be some residual urine.

*April 25th.*—Nothing larger than No. 7 would enter.

*March 1st.*—Passed No. 8 Fr. bougie.

*March 3rd.*—Passed No. 8 Fr. Is passing water more freely.

*March 10th.*—No.  $9\frac{1}{2}$  Fr. bougie passed.

*March 12th.*—No.  $10\frac{1}{2}$  Fr. bougie passed.

*March 14th.*—No.  $11\frac{1}{2}$  Fr. bougie passed. Complains of seated pain along thigh. Ordered.

R	Vin. colchici,	$\bar{z}$ i,
	Potass. Iodid.,	3 iv,
	Syr. auraut. cort. }	aa.
M.	Aquæ,	$\bar{z}$ iss.

S. 3 i., t. i. d.

*March 18th.*—No. 13 Fr. bougie passed.

*March 25th.*—No. 15 Fr. bougie passed.

*March 29th.*—No. 16 Fr. bougie passed. Still unable to pass sounds.

*April 2nd.*—Flexible bougie, No. 16 passed, and then a No. 16 Fr. steel sound passed for the first time.

R	Sodæ bicarb.,	℥ i.
	Pulv. ipecac,	gr. xii.
	Pulv. cubebs,	℥ aa.
	Bismuth, S. N.	℥ i.

M. Div. in chart. no. xij.

S. One powder t. i. d.

*April 4th.*—Sounds Nos. 16, 17, 18 Fr. passed.

*April 8th.*—Sounds Nos. 15, 16, 17 Fr. passed into bladder; No. 18 would not pass into same.

*April 10th.*—Sounds Nos. 18 and 20 Fr. passed.

*April 12th.*—Sounds Nos. 16, 18 and 20 passed. Patient has a Helical which admits with difficulty a sound of any size.

*April 15th.*—Sounds Nos. 18, 20, 21 Fr. passed.

*April 17th.*—Sounds Nos. 18, 20, 21 and 23 Fr. passed.

*April 19th.*—Sounds Nos. 18, 20, 21 and 23 Fr. passed.

*April 21st.*—Sounds Nos. 18, 20, 21 and 23 Fr. passed.

*April 23rd.*—Sounds Nos. 20, 21, 23 and 25 Fr. passed.

*April 25th, A. M.*—Sounds passed.

3 P. M.—Etherized by House Surgeon. Prepuce held by flat forceps, and full portion cut off. Mucus membrane slit up and balance of tissue trimmed off. Mucus membrane and skin brought together by China silk sutures.

*April 27th.*—Stitches removed. Primary union.

*May 9th.*—Passed Fr. Sounds Nos. 20, 21, 23 and 25.

*May 11th.*—Discharged cured.

#### SCALP WOUND.—FRACTURE OF EXTERNAL TABLE OF SKULL.—SEPTICÆMIA.

Bridget McManus.—M.—æet. 67.—Ireland.—None.—Admitted April 21, '78.

Was struck on the head with a shovel by her husband. No concussion.

*On admission.*—Lacerated wound of scalp over the left fronto-parietal region, extending down to the bone. A small sliver of anterior table has been splintered off.

*Treatment.*—Tenth. with balsam laid in the wound, and the edges brought together with silk sutures.

*April 23.*—Sutures removed. Union good. Tenth at each end of wound.

*May 5.*—Chill.

*May 7.*—Vomited. Union broken down. Bare bone.

<i>May 8.</i> —R.	Ferri chlorid.	℥ i.
	Glycerinæ,	℥ i.
	Aq. chl.	℥ iv.

M.

S. ℥ i., t. i. d.

2 P. M.—Chill. 9 P. M.—Chill.

May 9.—2.30 A. M.—Chill. 6.30 A. M.—Chill. 9 A. M.—Pain in head. Delirious. Œdema of both lungs.

P. 108. Resp. 48. T. 104. Applied dry cups over chest. Has had partial involuntary micturition for several days. Ord. Quiniæ sulph. gr. x in capsule. t. i. d.

P. M.—Pulse 124. R. 58. T. 105  $\frac{1}{6}$ °.

May 10.—R. Quiniæ sulph. 3 v. Di.

Glycerine, 3 ss.

Aq. (ad.) 3 iv.

M. S. 3 j., q. iij. hor.

Condition worse. Delirious at times. A. M.—P. 100. R. 42. T. 103  $\frac{1}{8}$ °. Involuntary evacuation of fæces and urine.

5 P. M.—Rattling in throat. Recognizes her friends, but is aphasic. Sordes. Breath foetid, but not sweetish. Urine 1,020°, very acid. Negative. P. 106. R. 44. T. 102°.

6.30 P. M.—Convulsive movements of face. (Mainly on right side). Neck and right arm.

May 11.—9.30 A. M.—Died.

#### AUTOPSY.

May 11.—5.30 P. M.—Autopsy by Deputy Coroner.

*Skull.*—No fracture. Small collection of pus beneath the periosteum on external surface of skull, near and communicating with wound of scalp. Both tables of the skull for about four square inches around wound, yellow and dead.

*Brain.*—Between dura mater and bone, and between dura mater and brain tissue, was a layer of pus which covered the middle third of left cerebrum. Superficial softening of brain beneath the pus.

*Lungs.*—Hypostatic congestion of lower third of both, and general œdema of same.

*Heart.*—Normal.

*Spleen.*—Softened and broken down at centre.

*Kidneys.*—Normal.

Diagnosis. Septicæmia following injury to the head.

#### BULLET WOUND OF ABDOMEN.—SERVICE OF DR. T. M. MARKOE.

Thomas Gorman.—æet. 22.—Single.—New York.—Driver.—Admitted May 3, 1878. About an hour before admission was shot by policeman.

*On admission.*—Some alcoholism. Pain across upper part of abdomen. Bullet wound on left side, about an inch and a half external to nipple line, and two inches above free border of ribs. Probe gives negative results.

On right side, about two inches from median line, and an inch and a half above free border of ribs there is an ecchymotic swelling. This being cut into, a bullet was extracted.

*Treatment.*—Wet dressing. Morphine. Soon after admission patient vomiting. No blood in vomit.



May 4.—Vomited twice during the night. Not bloody. Pulse intermits.

M. M.—Vomiting water and mucus. Tympanites. Pill Opil every 3 hours. Hypodermics of Magendie m x-xv, three or four times daily.

May 5.—Pulse slightly intermittent. Much flatus passed per anum. Pill, opil q. ii. hor.

May 6.—Passes much flatus. Less tympanites. Pil. opil stopped. Hypodermics of Magendie, three or four in the day.

May 7.—Much less tympanites. Some tenderness. No pain.

May 9.—Neither vomiting nor pain. Slight epigastric tenderness. Fearing an attempt at a rescue, patient was removed about 8.30 P.M. to 25th Precinct station house.

## PERISCOPE.

### COLLABORATORS.

#### Dermatology:

HENRY G. PIFFARD, M.D.

EDWARD C. SEGUIN, M.D.

FRANK P. FOSTER, M.D.

FRANK J. HENNING, M.D.

E. DARRIC HODGSON, JR., M.D.

#### Genito-Urinary Disease and Syphilis:

ROBERT W. TAYLOR, M.D.

FREDERICK A. LYONS, M.D.

SAMUEL B. ST. JOHN, M.D.

Orthopedic Surgery:

NEWTON M. SHAFFER, M.D.

### RESECTION OF THE RIBS IN CASES OF RETROCOSTAL ABSCESS.

Dr. Lossen, Professor of Surgery in Heidelberg, writes in the *Berliner Klinische Wochenschrift* for March 4th, that resection of the ribs in retrocostal abscesses was first recommended by Roser, in 1859. His object was permanent dilatation of the empyematos fistulæ, which usually show a strong tendency to contract, principally through the close approximation of the adjacent ribs, whereby the introduction of tubes and canule is rendered well nigh impossible. A case of empyematos fistula of eight years standing was thus treated by Roser, in 1865, after which it rapidly healed in fourteen days. In 1869, Simon excised a portion of the sixth rib in a case of empyema with fistula, *Berl. Klin. Wochenschrift*, 1876, No. 49, with the object of permanently dilating the canal. After a few weeks the edges of the wound again came so close together, that only a fine sound could be introduced. At the same time, however, the suppurating cavity had become much smaller, and ultimately became completely obliterated, while there remained a marked sinking in the sixth rib. This led Simon to the conclusion that the sinking of the rib was the immediate cause of the closing of the cavity, which was before impossible, owing to the rigidity of the walls; for the ribs, with their cartilages and attached muscles, form a pretty rigid external wall to the pleural cavities, whose dimensions can only be altered by elevation or depression of the ribs, but not by any change in the

curvature of the individual ribs, which is impossible. In long standing empyema, the affected side of the thorax is in the condition of expiration. The ribs are depressed and still further approximated by adhesion, and even in immediate contact. The posterior wall of the cavity, being formed by the lung, is, on the contrary, more movable and less resistant, provided the lung itself is not tied down to the neighboring thoracic wall by adhesive bands. If we now remove a portion of the costal arch, the walls of the cavity can approach and come into contact; and the abscess heals. Three cases thus treated within the last few years by Stehberger and Peitavy, by section of the ribs, bear out this view, which is also confirmed by the following case. In October, 1868, a young lady, nineteen years of age, presented herself with a fistulous opening on the right side of the thorax. When she was two years old, an abscess had formed in this situation, from which, when opened, a large darning needle was removed. How the needle had come there could never be made out, in spite of all treatment a fistulous opening remained, with a constant discharge of pus. It was so narrow that only a fine probe could be introduced. Dr. Lossen, therefore, removed a piece about two-thirds of an inch in length, of both the sixth and seventh ribs, whereupon a cavity about the size of a fist was reached, containing a considerable quantity of thick pus, and extending towards the axilla. Under a treatment consisting of carbolic injections, drainage, etc., the cavity diminished considerably and the adjacent ribs sank inwards, while the patient, whose general health had latterly become much impaired, improved in every respect. In March, the ends of the ribs had approached so closely by cicatrization, that it became extremely difficult to keep the sinus open for the purpose of injection, while, at the same time, there clearly still existed behind it a pouch nearly two and one-half inches six centimetres in depth. Consequently, Dr. Lossen further removed, on April 19th, a piece about one and two-thirds inch long from the upper rib, and a piece about one and four-fifths inch long from the lower one, whereby almost the entire cavity was laid bare. The patient now did well; the ribs were drawn still further inwards, while a few small pieces of bone came away through the now shallow opening. The case is instructive, as showing the mode in which a radical cure was affected; and the necessity for a second resection proves the importance of removing a fairly large portion of the rib.—*London Med. Record*, May 15th, 1878.

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A CASE OF DISLOCATION OF THE SACRUM, BY J. THORLEBY JONES, M.R.C.S. *British Medical Journal*, July 6, 1878.

H. J., aged 55, a healthy powerfully built man, was admitted into hospital on January 17th, 1878. He had been knocked down by a traction engine. The nature of the accident was obscure; but it was stated in evidence that he had fallen in front of the engine, and that the wheel had pressed him to the ground but had not passed over

him. He was unable to move, so he was brought here at once, where he arrived one hour after the accident.

On admission, he was found to have a fracture of the right humerus. There were bruises on the left thigh and leg and over the crest of the right ilium. On examining the pelvis, no signs of fracture or dislocation were elicited. There was no marked collapse, but he seemed a good deal shaken. The humerus was put up, and the patient removed to the ward. He was seen two hours afterwards, and he expressed himself as being quite comfortable, and in no pain. The shock had passed off, and he was able to take some beef-tea and milk. The urine, which was passed voluntarily, was quite free from blood. At 9 P. M., four hours after admission, he was again seen, and then for the first time he complained of pain, which he referred to the lower part of the abdomen. A poultice was ordered, and a draught of twenty-five minims of liquor opii sedativus was administered. The pain became more severe; the surface of the body became cold and clammy; the pulse was hardly perceptible; he sank rapidly, and died at 11 P. M., seven hours after the accident.

*Necropsy.*—The intestines and all the organs, both abdominal and thoracic, were in a fairly healthy condition, and none were injured. After removing the small intestines, an extravasation of blood was found occupying the recto-vesical pouch and the loose tissue around; and on dissecting through this, the ilco-lumbar artery on the right side was seen to be wounded. The veins on this side were unhurt; but on the left side the external iliac vein was wounded at a point opposite the left sacro-iliac articulation. On removing the rectum, bladder, the vessels, and loose tissue from the pelvis, it was at once seen that the sacrum was unusually prominent; and further examination showed that it was separated from its articulation with the ilium on each side. The anterior sacro-iliac ligament was ruptured, all but a few of its fibres. The anterior border of the articulating surface of the sacrum was at least a quarter of an inch in front of that of the ilium, on both sides. The posterior aspect of the articulation was then examined, and here the ligaments could not be well defined on account of the laceration of the glutens maximus and the extravasated blood. A careful examination was then made of the whole of the pelvis, and at no point was a fracture discovered.

I have referred to several authorities on the subject of dislocations, but in two only can I find anything bearing upon the case under consideration. One is in Cooper's *Surgical Dictionary*, where it is said that "the sacrum may be driven forward by pressure against the sacrum, the body being fixed; but," it goes on to say, "this is usually the least part of the injury, being usually complicated with fracture of the pelvis at some point or other."

The other reference I would make is to an article written by Mr. Birkett in Holmes' *System of Surgery*, in which it is stated that, in cases in which there is the greatest amount of displacement, viz., in the sacrum from the ilia, the edges or borders of the articulations of both bones are usually broken off. In the case which I am recording we found no such condition.



I would draw attention for a moment to Malgaigne's plates. Here there is a representation of a dislocation of the sacrum; but, as is usual, the dislocation is complicated with a fracture of the pelvis. In the case under our consideration, there was a distinct separation, or, to use a term suggested by Dr. F. J. Brown, a disruption of the sacrum from ilia, complicated with injury to the blood-vessels but with no fracture.

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FEIGNING FEVER. BY DR. SELLERBECKER. *Berlin Klin. Wochenschrift.*

A peculiar case of feigning, in order to procure greater attention, is here reported.

A female patient, under treatment for stenosis of the heart and ulcer of the stomach.

Temperature found to vary, without apparent cause, from  $101^{\circ}$  to  $103^{\circ}$ . Pulse 120 and respirations 20.

The rapidity of the pulse was easily explained, and the doctor, by means of rapid and deep respirations, elevated his own pulse from 75 to 130 per minute.

The elevation of temperature was more difficult of explanation, but was evidently effected by deceit. To clear up the point, the thermometer which in the axilla registered  $101.1^{\circ}$ , was placed in the rectum, which gave a temperature of only  $99.6^{\circ}$ .

The patient eventually confessed, and explained her methods as follows :

As soon as the nurse had placed the thermometer in the axilla, from pretext of cold she covered herself well, and then drawing the back part of the chemise forward in the axilla, and making of it a kind of sack in which to envelope the thermometer, she pressed it firmly between the arm and thorax. Then by rapid respiration, she produced friction of the thermometer between the folds of her chemise. This she continued until she obtained the desired elevation.

Dr. Sellerbecker, in trying this himself, produced a registration of  $114.4$ . This effect could not, on account of evaporation, be produced when the thermometer was subject to friction by direct contact with the skin. But where the skin was very dry, in the course of three minutes, a temperature of  $107.3^{\circ}$  was obtained.

It would seem from this circumstance that the temperature in the axilla, when the respirations are rapid and skin dry, should always be corroborated by the temperature in the mouth of the rectum.—*Mich. Med. News.*

#### RESECTION OF THE KNEE-JOINT.

Dr. Von Langenbeck, at the late congress of the society of German surgeons, showed a girl aged three years, on whom he had operated a year previously, by making a semilunar incision on the inner side, extirpating the capsule of the joint with the bursa of the quadriceps, and sawing off the articular surface of the patella. The

growth of the limb had not decreased, as about four-tenths of an inch had been removed, and there was shortening to the extent of about one-fifth of an inch.

Dr. Petersen Kiel had found in a case in which he performed resection of the knee three years ago, with retention of the epiphyseal cartilage, that there was increase in length to the extent of more than an inch.

Dr. Riedinger, Würzburg had preserved the patella in one case freshening its surface and those of the femur and tibia, and fastening the bones together.

Dr. König Gottengen had, in the course of eight or nine years, met with no case of shortening after preservation of the epiphyseal cartilage, although he had observed flexion of the limb, depending apparently on bony, but in reality on cartilaginous ankylosis. He advised that the surgeon should endeavour to obtain a stiff and not a movable joint, and that the incision should be transverse. Dr. Von Langenbeck preferred the inner semilunar incision by which he had been enabled to preserve the muscular structures and the mobility of the joint, and which also facilitated the extirpation of the pouch of the synovial membrane. The latter object was fulfilled with more difficulty by transverse division of the patella, as recommended by Volkmann. His ultimate object was always to obtain a movable joint, as ankylosis interfered with the growth in length of the bone.

Dr. Hüter was in favor of the anterior flap. The whole should be within view, so that not only might the articular cartilages be removed, but carious foci in the tibia, frequently the starting point of the whole disease—be discovered and scooped out. With this he combined drainage of the tibia, after opening its anterior surface with an American drill. Of five recent cases, he had obtained good motion in three; he removed the patella, but cut the ligamentum patellæ obliquely, so as to favor its union by first intention, and preserve the muscular apparatus.

Dr. Kocher, Bern had performed resection of the knee-joint twenty-five times with three deaths. He had occasionally met with shortening, in spite of the preservation of the epiphyseal cartilages. He believed with Dr. Hüter, that the antiseptic method was more favorable than the open treatment to obtaining movable joints. He had had death with the antiseptic method, but none with the open treatment.

Dr. Von Langenbeck, always used extension when the dressing applied, was so as to leave an interval between the sawn surfaces of bone; the wound was closed by suture as far as the part where the drainage-tube was inserted. Dr. Schede had brought the sawn surfaces of bone together, partly by catgut, partly by silver wire, but had never obtained bony ankylosis. Dr. Hüter, regarded a certain degree of mobility in the new joint as the best means of obviating an angular position of the limb. Oblique division of the ligamentum patellæ was followed by firm union, with the help of which the quadriceps extensor acted on the leg.

Dr. König believed that mobility had nothing to do with the ad-

hesion of the ligamentum patellæ. He followed antiseptic principles strictly in the after treatment.—*London Med. Record*, May 15, 1878.

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## ABOUT BOOKS.

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*The Breath, and the Diseases which give it a Fetid Odor, with Directions for Treatment.* By Joseph W. Howe, M.D. Second edition, revised and corrected. New York: D. Appleton & Co., 1878, pp. 108.

This is a small book, but a very useful one. The subject of bad breath, though seemingly trivial, is of the greatest importance to the unhappy sufferers, and is well worthy of the attention of all. There is perhaps nothing more annoying to a person, or more disgusting to those with whom he comes in contact than a foul breath, and anything that can be done to relieve the condition is received with delight and gratitude by the unfortunate patient. Dr. Howe was the first to call special attention to the subject in a complete monograph a few years ago, and the favor with which the result of his labors was received is evidenced by the early call for a new edition.

Only those conditions in which the foul odor is the most prominent symptom are considered, while bad breath from other causes which are in themselves the chief disorders are not touched. Thus the peculiar fetid breath of insane patients and of patients suffering from acute diseases is not discussed. Still there is ample scope in the field selected, and it has been pretty well gone over.

We cannot say that there is anything particularly new or striking in the book, but it is very nicely put together.

The author begins with a brief survey of the physiology of waste and repair. Necessarily in a work of the kind, such a survey must be exceedingly limited. However, he has made it extremely plain. Indeed the subject is treated in so very elementary a manner that we can scarcely believe he is addressing himself to medical readers. We can hardly see any necessity for him to descend to such very elementary points as the following:—"The products of decay or retrograde metamorphosis eliminated by the lungs, as before stated, are carbonic acid (composed of one atom of carbon and two of oxygen, water formed of one equivalent of hydrogen and oxygen each, and a trace of animal matter)."

Does it not show a slight want of appreciation of the understanding of medical men, to be so very simple in a work of this kind? At any rate, if the author deems it necessary to explain so simple a matter as the constitution of carbonic acid and of water, he should at least be accurate, for every one knows that water instead of being composed of one equivalent *each* of oxygen and hydrogen, is made up of *two* of hydrogen to one of oxygen. Again he leads his readers to understand, by the position of the bracket that closes the parenthesis that water is composed of a trace of animal matter, whereas, we suppose he means



to say that the products of decay eliminated by the lungs contain a trace of animal matter. We do not speak thus in a carping mood, but if the work were intended for medical readers such details were unnecessary, and if for the laity, its form should be somewhat modified.

Aside from these facts the work is well written and will be of considerable service to the practitioner for the number of useful prescriptions given, and the plain and valuable suggestions for the treatment of foul breath. The work shows the results of careful observation and study, and no doubt will be much appreciated by its readers.

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### NEWS ITEMS AND NOTES.

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**The Nature of Fermentation.**—Prof. Lister delivered the introductory address in King's College, London, October 1, 1877, on this theme. A full report is published in the *Quarterly Journal of Microscopical Science*, which will well repay perusal. Prof. Lister shows by a series of new and interesting experiments, that alcoholic fermentation of grape-sugar is due to the growth of the yeast-plant; that the putrefactive fermentation of blood depends on the development of bacteria, and that lactic acid fermentation of milk is due to *Bacterium lactis*. This is additional confirmation of the views of Pasteur and the recent experiments of Prof. Tyndall, and mark strongly against the theory of spontaneous generation.—*Pacific Med. and Surg. Jour.*

**A Sea Voyage for Dysmenorrhea.**—A writer in the *Boston Medical Journal* says that dysmenorrhea is a rare occurrence at sea. He refers to a patient who had been a martyr to the disorder for many years, and who was always entirely exempt when at sea.

**Soft Soap in Glandular Swellings.**—Frequent inunctions of soft soap has been efficacious in the hands of a distinguished German authority, for dispelling chronic glandular swellings, and also for the cure of scabies, and some other cutaneous affections.

**Regular Medicine is not Allopathy.**—We notice with surprise that the *Medical Press and Circular*, applies to the regular practice of medicine, the term Allopathy. It is true that there is authority for it, but it is equally true that the term is a misnomer, which has been almost universally repudiated and condemned by the profession in America, and we had supposed everywhere. It implies a particular and exclusive mode or theory of practice and in this respect is not only inapplicable, but in positive violation of a principle of professional ethics. As a distinctive title merely, it might be tolerated; and this was its application in former years. But modern schismatics have given it a different application, and it is now mostly employed in contradistinction and opposition to "homœopathy." Our enemies apply it not as a term of distinction only, but with a view to the derivation and meaning of the word. Regular medicine, standing on the broad basis of universal science, conforming to all the known laws of

nature, and appealing at once to highest reason, and the common sense of mankind, debases itself by accepting a cognomen which stigmatizes its votaries as a mere sect, and one of a multitude of sects, with which the title places it side by side in the same catalogue. We hope our respected cotemporary will, on second thought, appreciate this friendly criticism. Let us claim for our profession an unlimited and universal scope, designated by such terms as "regular" or "rational," dissociating it from all exclusive dogmas, all narrow "pathies" and "isms"—a scope that shall cover the "boundless continent" of philosophy and science.—*Pacific Med. and Surg. Jour.*

**Successful Ovariectomy by a Female Surgeon.**—The first case of ovariectomy by a woman on the Pacific Coast, has been lately performed in San Francisco by Mrs. Charlotte B. Brown, M. D. It has proved an eminent success, and the patient has entirely recovered. A report of it appears in the July number of the *Pacific Med. and Surg. Jour.*

**Medical Examiners vs. Coroners.**—The *Boston Advertiser* says: Under the law substituting medical examiners for coroners, which has been in operation for a year, 178 deaths were investigated, and only 27 inquests held. The average expense of the inquests was \$6.60, and it is estimated that the saving to the county was fully one third over the old way.

**Chloral Hydrate in the Treatment of Ulcer of the Stomach.**—Chloral Hydrate has recently been tried with signal success at Pesth, for the relief of the symptoms of ulcer of the stomach. In the *Pester Med. Chir. Presse*, Hertzka records a case in which the symptoms had continued for ten years, and for which numerous remedies had been tried in vain. The sufferings of the patient had become very severe, and death appeared imminent. Three doses, fifteen grains each, of chloral hydrate were administered every evening, at intervals of two hours, and the treatment was persevered in for fifteen days. Carlsbad water was also taken during the daytime. By the third day the patient had experienced considerable relief; the cardialgia, hæmorrhage and vomiting ceased, and the functions of the stomach became partially re-established. Dr. Hertzka believes that the remedy possesses styptic and disinfectant, as well as anæsthetic properties.—*London Med. Examiner.*

**Explosive Stove Polish.**—A death recently occurred in New York from the explosion of a package of Boynton's Liquid Stove Polish, while the latter was in use near the fire. The polish contains naphtha, with black lead, and is a highly dangerous compound.

**Milk Fever.**—In an elaborate paper read before the Dublin Obstetrical Society *Dublin Jour. Med. Science*, May, 1878, Mr. Arthur V. Macan maintains that: 1. There is no rise in temperature necessarily accompanying the first secretion of the milk; 2. Pain and distension of the breasts may cause fever, but this fever differs greatly from that generally described as milk fever; it comes on somewhat later and lasts much longer; for, while milk fever is said usually to

terminate in from 8 to 24 hours, this fever, in 65 per cent. of the cases, lasts more than 24 hours, and does not, I think, so frequently terminate in profuse sweating: 3. The pulse in these cases is often much slower than the temperature would seem to warrant: 4. In cases of fever, during the puerperal state, the presence of full breasts is not sufficient justification for at once diagnosing the case as one of milk fever.—*Monthly Abstract of Med. Science, July, 1878.*

**Cremation Society.**—About one hundred ladies and gentlemen assembled at Indianapolis, for the purpose of forming an association to encourage and foster the practice of cremation. Dr. B. W. Fletcher said the meeting was called in accordance with a petition handed him from over one hundred persons, asking that he take steps for a permanent organization. On motion, Mr. Eggart was made chairman of the meeting, and Daniel Paine secretary. Dr. I. L. Thompson read an interesting paper on cremation, in which he expanded on its advantages, gave a description of its practical workings, and strongly recommended the formation of a permanent organization. A committee of five was appointed to draft a constitution and by-laws.—*Med. and Surg. Reporter.*

**Obstinate Vomiting of Pregnancy.**—Dr. S. C. Busey, Washington reports several cases in which, all other remedies having failed, he obtained decided and almost immediate relief by the use of bromide of potassium. In every case in which he has used this he has succeeded in relieving the vomiting. His rule had been to give the bromide in doses varying from thirty grains to a drachm, dissolved in beef tea, to which brandy and laudanum may or may not be added, according to the general condition of the patient. This is to be given in enemata every four hours until the nausea and vomiting cease, and until the stomach can retain some simple nutritious food, and stimulants, if there is any necessity for them. After that the bromide should be gradually withdrawn by a lengthening of the intervals between the enemata. The idea of this use of the bromide of potassium, had been suggested to him by Dr. Girabetti, who had obtained excellent results from its use.—*Amer. Jour. of Med. Science, Jan., 1878.*

**New Surgical Pavillion at Bellevue.**—A lady who desires no notoriety, has given \$20,000 to the Commissioners of Charities, in New York city, for the purpose of erecting a surgical pavillion on the grounds of Bellevue Hospital, where respectable patients may receive care separate from those who cannot be regarded as respectable. The building will contain rooms for thirty patients.—*The Med. and Surg. Reporter.*

**A Caution.**—A placard in the window of a patent medicine man in Paris reads as follows; "The public are requested not to mistake this shop for that of another quack just opposite."



# THE HOSPITAL GAZETTE

AND

## ARCHIVES OF CLINICAL SURGERY.

A WEEKLY JOURNAL OF MEDICINE, SURGERY AND THE COLLATERAL SCIENCES.

EDITED BY

EDWARD J. BERMINGHAM, M.D., and FREDERICK A. LYONS, M.D.  
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### EDITORIAL.

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#### THE MARRIAGE OF DWARFS.

There are many abuses at the present day that writers who do not care to class themselves amongst the so-called Reformers, are but little prone to investigate; owing, partly, to the amount of ignorant opinion, based on false notions of individual rights and freedom, sure to meet them more than half way, and partly to the fact that those who are, or should be, most interested, are not at all inclined to consider the subject dispassionately. This is especially so in the cases of which we are about to speak, where the facts clash with the gratification of passion. So strong are these reasons that it seems an almost useless, and, certainly, a thankless task to investigate them.

Knowing all this, we nevertheless approach the subject of the right of marriages amongst dwarfs, or female dwarfs and healthy, full-grown males. The question as to whether consumptive, syphilitic, and cancerous persons should be allowed either to marry or cohabit; to give birth to progeny almost sure to suffer with or from the disease of either one or both parents, has long been a subject of earnest thought and discussion amongst those who have given any attention to the subject of social science. This question of dwarf marriages might well come under the same head, and the arguments *pro* and *con*, to a certain extent modified, apply to it.

The subject has been brought very forcibly to our minds by the recent death of Minnie Warren, whose history most, if not all of us, know. The child, contrary to the expectations of many, proved to be of about the average weight of that of an infant born of full-grown parents. To deliver a dwarf of Minnie Warren's size of so large a child, and save it and the mother, was of course out of the question; but, sad to say, they were both lost, and it seems to us equivalent to murder and suicide. Of course both parents here were dwarfs, and it may have been natural for them to expect a certain diminution in the size of the child; but upon what certain grounds that expectation

that held two human lives in the balance was based it is hard to determine. It seems the veriest height of madness to step deliberately into a condition that is almost certain to take the life of the party so doing and her child as well. The law exercises, or attempts to exercise a certain control over those who rashly attempt their own or the lives of others; and yet such cases as this are let pass by every now and then. To those marriages where a large, full grown man becomes united to a woman who is the veriest dwarf, and proceeds deliberately to place her in a condition that means the death of either or both mother and child, we can see no extenuation. Most of our readers remember the case of the little dwarf woman at the American Museum of this city, whose fate was just this, and whose six-foot husband followed her complacently to the grave, with possibly not a thought of his guilt.

From one of the daily papers we clip the following:

"Mrs. W. H. Bristol, wife of a former door-keeper of Forepaugh's circus, and known as Fannie Burdette, gave birth to a daughter at St. Louis, on the 24th inst. She was a dwarf 32 in. high and weighed only 50 lbs. The husband is a six footer and weighs one hundred and forty-five pounds. The child weighed 8 pounds, but in order to save the mother's life it was necessary to sacrifice the child."—*N. Y. Sunday Mercury*, July 28, '78.

Is this not on a par with criminal abortion, aye, even a higher degree of murder (if we may call it so.)

The last case of gastro-elytrotomy operated on by Dr. A. J. C. Skene, of Brooklyn, was of this nature, the woman being so deformed as to render natural delivery an impossibility. This was known to the rascal who seduced the poor wretch. In this case both mother and child were saved by a brilliant operation; but the fact stands nevertheless. The poor being was so deformed and distorted that when she stood (?) her face was but 14 inches from the floor.

That these marriages or results of copulation in these cases, should be made a criminal offense, as much as murder, suicide or abortion, we think no man who has studied the subject will deny.

## LECTURES.

## LECTURES ON INSANITY.

Delivered at the College of Physicians and Surgeons, New York.

BY

E. C. SEGUIN, M.D.

Clinical Professor of Diseases of the Mind and Nervous System.

(Reported For THE HOSPITAL GAZETTE.)

## LECTURE II.

MELANCHOLIA—VARIETIES—MELANCHOLIA SINE DELIRIO—MELANCHOLIA CUM DELIRIO OR COMMON MELANCHOLIA—HALLUCINATION—ILLUSION—DELUSION—SUICIDAL MELANCHOLIA—RELIGIOUS MELANCHOLIA—ACTIVE MELANCHOLIA—PHYSICAL SYMPTOMS OF COMMON MELANCHOLIA—MELANCHOLIA ATTONITA—ACUTE DEMENTIA—DIFFERENTIATION FROM TRUE DEMENTIA—TREATMENT.

Gentlemen,—We will now pass to the study of melancholia. The varieties of this disease that we shall consider, are as follows :

1. Melancholia simplex, or sine delirio.
2. Melancholia cum delirio, or common melancholia.
3. Melancholia attonita.
4. Acute dementia, a condition very similar to the preceding.

We may sub-divide the second class, or common melancholia, according to the etiology, or the predominant line of delusions into hypochondriacal, suicidal, religious, active melancholia, &c. This is not a strictly scientific classification, but it is a very useful one for the purposes of study, as it represents the cases in their clinical aspects.

First, then, as regards the condition of melancholia sine delirio, it is not very rare. It consists in depression which may continue for weeks, or even months. The patient is dejected and hopeless, though he has no false ideas, either with regard to himself or the external world. He doubts his curability, but exhibits no errors, either of judgment or memory. We can hardly say that the patient is insane, though he is greatly depressed and dejected. I have seen a number of such cases in which it was a delicate matter to pronounce the case one of insanity, legally speaking. Every thing is dark and gloomy in the mind of the patient, and the body is a good representation of the mental condition. The face is elongated and drawn down, and wears a curiously aged aspect. In one of my cases I could immediately tell whether the patient was better or worse by simply looking at his profile. The gait and carriage of the body are listless and relaxed. The individual presents a walking picture of sadness. The tone of voice likewise shows the patient's mental condition; he whines when he talks, and every sentence expresses hopelessness.

Other physical symptoms are not well marked. The general physical health is not much impaired. He may suffer from dyspepsia,



have a coated tongue, and lack appetite, but otherwise be in fair condition. The pulse may be weak, and perhaps increased in rapidity, but these conditions have no value in diagnosis. Digestion in the lower bowel, and the function of evacuation may be sluggish. The sexual function is usually depressed, and sometimes we have a transitory impotence.

The duration of the disease is from six weeks to three months. I lately saw a case in which this condition lasted for three months. In this case the patient had been very hard at work in a professional way, and felt very much elated and quite enthusiastic. Following this came a period of profound depression, with a sudden dislike for all duties and intercourse of any kind. There is present in such cases a marked degree of skepticism as to treatment, which is in marked contrast to what is exhibited by the hypochondriacal patient, who goes to the other extreme.

The next variety, *melancholia cum delirio*, requires little description as regards the depression, but there are, in addition to this, delusions. But we must now define what we mean by a delusion. There are three words by which we denote the erroneous impressions in the minds of patients, hallucinations, illusions, and delusions.

By *hallucination* we mean an impression received through one of the special senses, or by common sensory nerves, without basis in the external world—an unreal sensation if you please. For example, a patient shall fancy he sees a person standing in a vacant place. Often the victims of hallucination recognize the unreality of the impression, and you will find in literary and medical records, instances of sane persons—Sir Walter Scott and others—who have had vivid hallucinations.

By *illusion* we mean a perverted sensory impression; the patient declares one thing to be another. For example, a bundle of rags may be appreciated as a bouquet, a bit of shining stuff as precious metal, etc. Here, as in the case of hallucination, the patient may correct the error by the use of other senses than the affected one, or by simple reasoning.

If the patient fail to appreciate the unreality of his hallucinations or illusions—if he affirms his belief in what he thinks he perceives, we say he has a *delusion*. In other words, a delusion exists only when reason and judgment fail to correct. But delusions may exist independently of false sensorial impressions—there are false conceptions—hence I am disposed to classify delusions into two well defined natural groups: *sensorial delusions* and *notional delusions*.

In the same patient we may have many of these wrong ideas, and usually they make the patient very miserable, but on the other hand many patients are happy in their delusions.

In a patient with *melancholia cum delirio*, the fundamental state is the same as I have already described, but all patients in this condition, have in addition thereto hallucinations, illusions and delusions. All of these wrong ideas are injurious and offensive to them. They hear dreadful voices calling to them or whispering in their ears, and see frightful faces glaring at them. They think they are murderers

or have committed some unpardonable sin for which they will never be forgiven; they are to be damned, etc.

The delusions are of all kinds. One patient went about holding his leg thinking that it was made of glass, and allowing no one to approach him for fear of breaking it in pieces. Women have imagined themselves to be pregnant with the devil. Patients hear themselves continually called bad names, see machines made by their enemies to annoy or destroy them, and so on. In fact every sad and depressing notion and sensation, that can be imagined, is in the minds of these unfortunate patients.

We designate the varieties of this kind of melancholia according to the predominant notion in the patient's mind. In hypochondriacal melancholia there is imaginary disease of some organ, but there is this difference between the present disease and pure hypochondriasis, in the latter, the patient fears death, while in the former he does not. One fancies he can never be cured, while the other thinks he can be.

Suicidal melancholia explains itself. The tendency of the patient in this condition to commit suicide is perfectly logical if you admit the conditions. The reasoning is perfectly logical but the premises are false. A man thinks his child is starving and he is unable to procure food for it; in his despair he cuts his child's throat and his own. A woman thinks she has committed adultery and kills herself to avoid the consequences of disgrace. In many of these cases we can thus trace the act back to a logical cause.

In religious melancholia, the individual thinks he has committed some terrible sin and therefore he must suffer for it. The patient prays continually; he will often kneel for hours in the attitude of prayer. He goes about softly with arms crossed, and remains a long time in one position continuing to beg for forgiveness. He expresses his thoughts and delusions in his face, and in every attitude he assumes.

It is a point of some practical importance to know whether or not the melancholia is associated with sexual excitement. Young women with religious melancholia sometimes have severe nymphomania. In such cases it becomes of great importance to distinguish whether the sexual excitation is a cause or a symptom of the disease. It is often said that the patient has been leading a bad, immoral life, etc., and that that is the cause of the insanity. My own impression is that the sexual aberration is often a symptom, just the same as the excitation of any other sense or appetite. The patient is prompted to masturbate or seek sexual connection by sexual irritation, just as he is prompted to eat by excess of hunger. We cannot accuse a man of immorality because he is hungry and eats ravenously, and no more can we accuse him of the same crime if his sexual passions are unduly excited and are unrestrained by a disordered mind.

It requires a cautious and fearless investigation into this matter in order to decide. Careful inquiry must be made into previous habits and associations, the amount of normal sexual excitation to which the patient has been exposed, etc., before a conclusion can be arrived at.

We next have active melancholia. You may be called to see a



patient who is walking rapidly up and down a room which is in disorder, breaking chairs and furniture, smashing ornaments and other articles that he can lay his hands on, threatening to strike persons who approach him, and behaving himself, in various ways, in a very violent manner. You may at first think that he is suffering from mania, but this is not necessarily the case. In many cases the reason of the violence is great fear and terror. He is in a tremendous agony of fear, and instead of being quiet and awed like other persons with melancholia, he tries to repel the horrible objects and notions by violence. He may believe the chairs and tables and persons who approach him to be his enemies, or instruments sent for his injury or destruction, and consequently he acts in self-defense. By a consideration of his antecedents and, by watching the patient for a few hours you will obtain a clue to his expressions and outbursts of violence. You can fill up the gaps by reasoning and thus make out a clear case of active melancholia. The fundamental mental state must be exactly defined, because it is the chief element in the classification of the case.

We shall now consider the physical symptoms presented by cases of common melancholia. I have already touched lightly on these points in cases of melancholia of the first degree. In the second degree the symptoms may be more marked. Sometimes the temperature in the axilla is reduced; the pulse is feeble and accelerated; the heart acts feebly; the digestive symptoms are more marked; the tongue is coated, and there is a fœtor to the breath which is peculiar to insane patients but not exclusively to melancholic ones. The appetite is almost *nil*. Occasionally patients will not eat on account of a delusion, they fancying that their enemies poison their food, and wish to destroy them in that way, etc.; but aside from this, the appetite is at times lost. Digestion is slow, and there is no proper assimilation. There is obstinate constipation, and to cause a movement it is often requisite to use croton oil, or some other powerful cathartic. The patient emaciates, sometimes quite rapidly. The urine sometimes undergoes no change; sometimes there is an apparent excess of phosphates. This is a question that admits of debate; but at any rate the urine seems phosphatic, if you do not examine the whole amount passed in twenty-four hours and obtain the exact proportions.

There is insomnia which is partly due to mental and partly to physical causes. The insomnia is sometimes complete, but usually, however, the patient will sleep a few hours, and, contrary to expectation, the delusions are worse when he awakes. He is troubled with horrible dreams, and when he awakes he fancies himself an entirely lost man. Melancholics are often slightly better in the afternoon.

By *melancholia attonita*, we mean melancholia in connection with delusions so tremendous as to almost completely paralyze the patient; he is as if he had been struck by lightning. The facies is like that of a patient with ordinary melancholia; all the functions are sluggish, the excretions slow, the appetite *nil*, etc. Some patients are absolutely motionless, others very little and sluggishly. I have already described patients with religious melancholia as remaining in one position for a very long time; but in this condition they will positively



never move if not caused to do so by force. It is well worthy of the name given to it by some, of cataleptic melancholia. Such a patient, if allowed, may spend months in a chair in one position, not properly seated, but curled up in one position. I saw a patient of this kind who was seated for months, all doubled up in a chair, with the neck bent, the head resting on the folded arms, the legs bent up till the feet were on the chair, and the knees approximated the chin. The total volume of the body was greatly reduced. If not moved she would never stir, and she never uttered a word, or expressed her wants in any way. The effect of lightly burning different parts of the body was tried, but the patient did not stir. Pistols were fired off close beside her, she was pinched and pricked, but no response followed. I took one of her arms and slowly extended it, with the fingers awkwardly placed, I let it go and it remained immovable in that position. In this condition the eyes are very often closed, and remain so for a long time, though the patient does not constantly sleep. These persons would starve to death if let alone, and they have frequently done so in the old asylums. You are obliged to feed them with a stomach pump.

This condition sometimes improves. The patient to whom I have referred recovered for a time, but afterward died in a relapse.

In *acute dementia* we meet with a somewhat similar condition of terrible fear and great depression. The patient seems idiotic, but is not, as in the last instance, necessarily motionless, and is not so apt to refuse food, and he attends to his wants. The condition resembles *senile dementia*, or *congenital idiocy*.

There are different degrees of this state. The features of the face are relaxed, the eyes are open, and all the muscles are loose and flabby. The mouth remains half open, with the saliva constantly dribbling from it, while flies accumulate on the lips and tongue and around the nose. The patient may pass his feces and urine unconsciously, and is extremely filthy about his person. He takes food and medicine without opposition, but usually only when coaxed or urged. On looking at such a patient, our first conclusion is that the sufferer's mind is lost beyond hope; but the truth is that the mind is still present and active, and the probability is that he will recover.

The differential diagnosis between acute dementia, so called, and true dementia, is consequently of the highest importance.

The physical symptoms are the same as those already described. The temperature is reduced, heart and pulse weak and accelerated, the peripheral circulation sluggish, digestion slow, etc.

The differential diagnosis of false from true dementia is determined by a variety of considerations. The age of the patient is a point of importance. In acute dementia the patient is usually young, between 15 and thirty. He is not young enough to be suffering from congenital idiocy, as this is always apparent in childhood before adolescence is reached. The symptoms have developed within a comparatively recent period. These considerations will allow us to exclude idiocy, and true secondary dementia is very rare at such an early age.

The determination of the preceding pathological condition is worthy of attentive study. Take a young man who has just had a severe attack of typhus or typhoid fever, or some other serious disease. In such a case there is often cerebral anæmia, and true dementia might arise through thrombosis of the cerebral vessels, molecular changes in the brain, etc. Or suppose we make out a previous condition of severe malarial fever with a cachexia, enlargement of the spleen, and presence of free pigment in the blood. In such a case there would probably be true dementia, produced by the blocking up of small vessels in the cerebral cortex by pigment. We may find that the patient has had an injury to the head, or symptoms of acute insanity, or has been in the habit of masturbating excessively.

In older patients, we must look into the condition of the arterial system. There may be chronic Bright's disease, dilatation of the aorta, atheromatous arteries, enlargement of the heart, and other precocious senile changes. In still older people, hemiplegia, if present, will speak for true dementia. Hæmorrhage or softening of the brain will likewise point to true dementia.

Acute dementia appears without preceding gross pathological changes. The mental symptoms are the first to appear, and the physical symptoms as a whole, may be traced to them, instead of appearing first.

The time of development is also a point of great importance. The previous temperament must be ascertained, and changes in moral conduct enquired into. A seeming loss of mind that is fully developed in three or four weeks, or even two or three months, would be more likely to be due to acute dementia, whereas true dementia is slowly revealed.

Anæsthesia of the skin and of the mucous membrane has been described of late by some authors as present in all cases of melancholia. I have not verified this statement in private patients, or in mild cases. In true dementia it is only developed in the last stages when the patient is moribund. In acute dementia it is marked at the beginning of the attack. The question whether this is psychical or physical, is impossible to answer. Perhaps at first the nerves act normally and receive and carry impressions, but owing to the morbid condition of the superior centers, the impressions are not perceptible to consciousness. This state is illustrated in all of us, if we are so absorbed in what we are at the moment engaged in, that we do not respond to peripheral impressions. We do not feel a slight touch, hear some one near us, or respond to a summons, etc. The mind is preoccupied, and the sensation is not perceived by consciousness, though the conducting system is normal.

Our melancholic patients are in a somewhat analogous condition. They are greatly absorbed and wrapped up in what they are thinking about, even more so than Isaac Newton in his study, when he boiled his watch and looked at the egg for time. These views are partly founded on the confessions of patients who have told us what they experienced when in a state of severe melancholia, from which they afterward recovered. They knew everything that was going on

around them, heard all remarks made near them, appreciated their condition, but were as if dead to everything, unable to respond or protest. They were absorbed in the contemplation of their hallucinations and delusions. One patient imagined himself constantly gazing into hell which was beneath him, and ready to receive him if he stirred. Another was under the command of an awful mysterious voice which told him that if he ate or drank or moved he was lost beyond redemption.

I am peculiarly desirous that you should see in their proper light the true causes of many of these patients' actions. The sick are under terrible delusions which they believe to be true, and should receive consideration on that account. One great error exists in very many asylums, and that is a want of care on the part of medical men and nurses to put themselves in the patient's place. Imagination cannot draw a picture as horrible as is constantly present to the eyes of some of these unfortunates. If the attendant could fully appreciate this, he would say and do nothing heedlessly to aggravate their feelings. I am afraid that even to-day they are often spoken to brutally and even pushed about in asylums; proceedings which, while not constituting illegal treatment, are yet inhuman and injurious. Force must sometimes be used, as when melancholics refuse food or actively attempt suicide; but the measures then employed should be dictated by the medical officers alone.

If a patient with active melancholia walks about and shouts, he is often secluded in a padded room, or he is placed in bed and tied down with straps. Unless the patient is doing something that is dangerous to life, such measures should not be resorted to. For the simple sake of keeping the ward quiet, or of giving the attendants less trouble, such proceedings are unwarrantable. I positively protest against such interference.

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## HOSPITAL RECORDS.

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### PRESBYTERIAN HOSPITAL, NEW YORK.

Reported by ALBERTO LACAYO, M.D., House Surgeon.

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#### WOUND OF THE EXTERNAL PLANTAR ARTERY AND TRAUMATIC ANEURISM.

John T. Campbell.—Aet. 10—New York.

Single—Adm. September, 1870, Schoolboy. Six weeks before admission to the hospital he stepped on a piece of glass inflicting an injury to the sole of the foot. This was followed by severe hemorrhages, the last one of which took place two days previous to his admission.

The patient was in a very anæmic condition. The wound in the foot was an incised one. There was no hemorrhage when he came to the hospital; and it was therefore decided to leave the wound alone. The foot was stained almost black by the application of *Ferri Sulph*; pressure was exerted by means of compresses placed



upon the femoral and posterior tibial arteries. At some distance external and anterior to the wound a pulsation was detected. This was supposed to be due to the presence of a traumatic aneurism.

On the 19th, as the odor from the wound was very foul, the old dressings were removed, the wound washed out with carbolic acid water, and tannic acid and lint applied.

On the 20th, while Dr. White was dressing the wound, a severe hemorrhage took place, necessitating an operation for ligature. The patient was anesthetized, and an incision made in the sole of the foot, which opened into the aneurismal sac. While this was being done compression was made on the femoral artery; it being occasionally relaxed so as to make the bleeding points apparent. After a tedious dissection, the external plantar artery was reached, it being the principal bleeding vessel, a ligature was placed upon it: three more ligatures were then used to check the bleeding from the injured digital branch of the same artery. The edges of the wound were brought together with sutures and straps of adhesive plaster, and held by a roller bandage.

The patient recovered well from the ether, and was ordered.

R.

Ferri et. Quinina Cit. ℥ i.

Aquæ. ℥ viii.

M. S. ℥ j, t.i.d.

*Sept. 24th.*—New dressings were applied, wound suppurates very freely. Two ligatures that became very loose were removed.

*Oct. 3rd.*—The wound no longer suppurates and the aneurismal cavity has almost filled up.

*Oct. 16th.*—The wound with the exception of a very small spot has healed.

*Oct. 23rd.*—A small abrasion exists on the outer side of the external malleolus, which is dressed with sheet lint and simple cerate.

*Nov. 10th.*—The wound on the plantar surface of the foot has healed and the abrasion has diminished in size.

*Nov. 27th.*—The patient was discharged cured.

#### CONTUSED WOUND, AND Erysipelas.

Adm. Nov. 17, '76.—John Young,—æt. 28,—married,—England,—engineer. On Nov., 12, he fell on the sidewalk, and sustained a contused wound on the anterior surface of the tibia, about two inches below the patella. The next day he noticed that the wound had increased in size; the following day his leg became swollen, and was covered with a blush extending down the anterior surface of the leg to the ankle.

He had had several chills before this discoloration took place; these were followed by fever, headache, nausea, vomiting and general indisposition.

On examination, a contused wound about one and a half inches in length, and half inch in width was found, The wound extending down to the muscular substance.

The edges of the wound were œdematous, and had a red border.

Its surface was studded with a number of small' weak granulations. The leg still presented a bright red color; this disappeared on pressing it. At that time, the patient had very little fever.

On the 18th, liq. plumbi et opii was ordered to be applied to the part: and the second day he was ordered:

R.

Ferri sulph.	3 ii.
Aq.	O i.

M.

S. External use.

For the same day ordered:

R.

Pil. quinina sulph. (gr. iv.)	No. vi.
S. One,	t. i. d.

Nov. 24.—Patient has improved, and the erysipelatous inflammation has disappeared; also the blush. The granulations were very abundant.

On Dec. 3, the patient had a very slight attack of bronchitis.

Dec. 6.—No trace of blush was found, and the greater portion of the wound had healed up by granulation.

At his own request, He was discharged at that time.

## TRANSLATIONS.

### DIABETES MELLITUS—GLYCOSURIA.

BY

DR C. F. KUNZE.

Translated from the German

BY

PAUL H. KRETZSCHMAR, M.D., Brooklyn, N. Y.

By this name we understand an excretion of grape sugar (C.<sup>6</sup>, H.<sup>12</sup>, O.<sup>6</sup>;) with the urine, continuing, generally, for years.

The excretion of sugar through the urine which occurs under certain circumstances and disappears again after a short time, is known under the name of *mellituria* or *transitory glycosuria*.

The statements made by Brücke, B. Jones and Kühne that even normal urine contains small quantities of sugar  $\frac{1}{100}$  have been contradicted by Friedländer and Seegen. I have not been able to detect even a trace of sugar positively, in fifty liters of normal urine. The excretion of sugar through the urine should therefore not be considered as a physiological occurrence, but as a pathological symptom.

While we are told that even the Sanscrit speaks of "honey-urine," any reliable history of diabetes dates no further back than the year 1675, when Willis detected the presence of sugar in diabetic urine. Although Aretæus and Galen speak of diabetes, they did not differentiate it from simple polyuria, because they did not know anything about the existence of sugar in the urine. The most important

investigations of diabetes have been made recently and even in our own day. Prominent among careful observers and writers on the subject are the following names: Rolle, Pavey, Claude Bernard, Seegen, Külz and Cantani.

*Anatomy.*—The pathological changes found after death are partly of a secondary nature, sequences of diabetes, partly, however, of such a character that a pathogenical relation between them and diabetes should be accepted primary. Among the morbid conditions belonging to the first class, may be mentioned the great emaciation, the entire loss of all the subcutaneous adipose tissue, the dryness and dark appearance of the muscles with atrophy of the muscular fibres, the formation of furnucles on the skin which is found so often, the opaque lens and the changes in the lungs which are only wanting in exceptional cases and which may consist in either phthysical, ulcerative, tubercular, or even gangrenous processes. These secondary changes are probably developed only because the blood which is rich in sugar takes away all the water from the tissues and thereby causes a marked derangement of nutrition. The primary changes which have been observed in diabetic subjects may be of different nature, according to the origin of the diabetes, whether it is of the *nervous* or *gastric* variety.

In *nervous diabetes*, the changes found are mostly located in the nerve centres, especially in the medulla oblongata, in the neighborhood of the fourth ventricle, and in the cerebellum, also near the place, an artificial injury of which causes "*transitory glycosuria*" (Bernard's piqure), and consisted in tumors, extravasations of blood, softening, pigmentary degenerations of the ganglionic cells, dilatation of the perivascular spaces, fatty degeneration of the arteries carrying the blood to the parts near the fourth ventricle. In rare cases atrophy and pigmentary changes of the solar plexus were observed and in a solitary case there was a tumor found in the right vagus, situated at the hilus of the lungs.

In *gastric diabetes* have been found, atrophy of the liver cells with passive hyperæmia, Cantani also active hyperæmia with enlargement of the liver (Klebs), in many cases atrophy of the pancreas with fatty degeneration to a considerable extent, and sometimes, though rarely, the peptic glands of the stomach had undergone atrophy. The changes found in the kidneys are undoubtedly due to the increased activity of these organs during the course of diabetes, the changes consisting principally in hyperæmia and hypertrophy of the epithelial elements with an increase of the size of the cortical portion. Occasionally kidneys are found to be in a state of epithelial nephritis with their cortical portion enlarged and its epithelium in a state of fatty degeneration. Atrophied kidneys have not been observed as yet. The mucous membrane of the pelvis of the kidneys and that of the ureters is often found in a catarrhal condition. The testicles have sometimes been found to be atrophied. It is said that the blood is not as fluid as normal blood, its specific gravity is increased, from 1027 to 1029, which is its normal gravity, to 1033, and it contains an increased amount of sugar. (There cannot be any doubt that



normal blood contains some sugar. Finally, sugar is found in almost all the organs and secretions of diabetic patients: in the liver, spleen, pancreas, kidneys, brain, testicles, heart, muscle, in many muscles, also in the cerebro-spinal fluid, in the pus and in the purulent expectoration, in the saliva, gastric juice, tears, perspiration and Fletcher (*Medical Times*, 1847, p. 394, obtained from a piece of flannel of three inches square, which had been kept in the axilla of a diabetic subject, as much as  $6\frac{1}{2}$  grammes (100 grains) of sugar.

*Ætiology.* Diabetes mellitus is not a very frequent disease, but every practitioner meets cases of it during his professional life. In some countries it is observed oftener than in others, e. g., in Malta, Algiers and in Thuringia. That is about all that is known about its frequency in relation to geographical conditions. Heredity seems to have a marked influence over the disease; Leegen reports ten cases in which brothers of the patients died from diabetes, and in four cases the fathers were diabetic subjects; Cantani has observed eight families in which several members had died from diabetes; Isenflamm knew of a family in which apparently perfectly healthy parents had eight children, all of whom—at the age of 8 or 9 years—died of diabetes. Most cases occur during the period of from 20 to 50 years of age, but there is no period of life entirely free from it. Brown reports a case in a child, developing at the early age of twenty months, and Dickinson had a diabetic patient of seventy years of age. As to the influence of sex, it seems to be proven that males are more liable to be attacked by the disease than females. According to Griesinger, Seegen and Zimmer, there are twice as many men among the subjects of diabetes as women. The medical society of Thuringia (Germany)—table published Aug. 1, 1877—reports 75 cases and among them were 53 males and 22 females; of Griesinger's 225 cases, 175 were males and 50 females; of Zimmer's 62 cases, 49 males and 13 females; of Seegen's 140 cases, 100 males and 40 females; and, finally, of the 218 cases of Cantani, 191 were males and 27 females. According to Prout, Seegen and Fleckles, opulence and gout are predisposing conditions for the development of the disease. Among exciting causes deserving of mention are, the excessive use of lager beer (10 cases of 75 reported by the medical society of Thuringia), the excessive use of candies and puddings together with living an easy life and taking no muscular exercise. Cantani, as is frequently found in Ceylon and in Italy; and, finally, concussions of the brain and the spinal cord. Seegen tells us that Jews form a comparatively large proportion of diabetic patients, but his statistics have not much value, because they are taken from his practise in a watering place. Great mental emotions, colds, and exposure to the influences of moisture, sexual excesses, excessive smoking have occasionally caused diabetes.

*Mellituria*, the excretion of sugar through the urine for a short time, has been observed after poisoning with woorara, carbonic oxide, nitrite of amyl, nitro-benzol and some other articles, and after the injection of sugar or chloride of sodium into the blood.

*Symptoms and natural history.*—As a rule, diabetes only comes to the notice of the physician after its full development. The symptoms

of fully developed diabetes (excessive and insatiable thirst, enormous hunger, frequent and copious discharges of urine, containing sugar) are frequently preceded by gastric and nervous disturbances (dyspepsia acida, cardialgia, derangement of digestion—dizziness, headache) which exist for some time and which might be regarded in some respects as the forerunners of the disease. The disease often commences with a *transitory mellituria* or as *diabetes intermittens*, and terminates as *diabetes continuous*. Cantani. Kulz says that sometimes he observed simple polyuria (diabetes insipidus) running into diabetes mellitus, and, according to Prout, the increased excretion of urine, containing an abnormally large quantity of urea is to be considered as the commencing stage of the disease. In some cases, a progressive weakness of the eyes led to an examination of the urine and to the detection of diabetes. If there are, *remarkable dryness in the throat, increased thirst, and frequent and copious discharges of urine*, enough to make the patient get out of bed during the night and pass water, *a careful examination of the urine should not be omitted*. If but a small quantity of sugar is found to be present in the urine, it is advisable to empty the bladder, to give the patient a large quantity of home-made bread, and to keep him at rest for a couple of hours. During the following three or four hours after the administration of bread, the bladder should be emptied every hour, and at the second hour the excretion of sugar is largest and to be detected with ease (Kulz). Diabetes may be divided into *two stages*: *During the first stage diabetes of the amyliverous only the vegetable sugar which has been introduced as such, and the sugar which has been produced within the organism from starchy food and has not been burned up in the blood, is discharged with the urine, but the sugar which is derived from albuminous material (animal sugar) is used up in the organism; the urine therefore only contains sugar while the patient takes food which either contains starchy material or sugar. None, however, if the patient lives on flesh diet only. During the second stage diabetes of the carnivores neither of the two varieties, animal and vegetable sugar is burnt up, and the patient discharges sugar with the urine, whether he lives on starchy, saccharine or meat diet.*

To recognize the stage of the disease, therefore, it is necessary to place the patients on an absolute *meat* diet for some time, and to find out then, whether the sugar in the urine disappears or not. It seems that only during the first stage of the disease can it be treated successfully.

The diabetic urine has a *very pale color; it has a peculiar greenish tint; it is discharged in large quantities, and its specific gravity is very high*. It happens not unfrequently that male patients suffering from diabetes can be recognized as such from the white star-like spots which are apt to be found on their pants and boots, representing dried drops of urine which contained sugar. The pale, almost water-like color of the urine is due to the great dilution of the coloring matter from the increased quantity of watery constituents. The quantity of urine discharged during twenty-four hours is considerably larger than in health; the quantity is frequently four, and even six

times as large as is normal—from 3,000 to 10,000 CC,—and corresponds generally with the quantity of fluid which has been introduced in the form of food and drink. Only in those cases where watery diarrhœal discharges, or where the patient perspires a great deal, is the quantity of urine discharged smaller than the amount of fluid taken. As to the time when the urine is discharged, it depends on the time when the fluids are taken. The statement which frequently has been made that diabetic patients pass more water during the night than in the day-time, has probably been made without due consideration of the fact that patients are apt to drink a larger quantity of water before retiring, which causes them to urinate during the night. The high specific gravity of diabetic urine (1.035 to 1.070, against 1.020 to 1.025 normally) is due to the sugar which it contains. The quantity of sugar contained in the urine differs according to the severity of the disease, and depends on the length of time after meals at which the examination of the urine is made; it also varies considerably according to the kind of food which has been taken. It is largest after the use of food containing starchy or saccharine material, and is most marked two or three hours after the meal has been taken. The quantity of sugar contained in the urine at different times often differs widely; it may just be a trace, or it may be several and even thirteen and fourteen per cent. The average amount of sugar discharged during twenty-four hours, in the majority of cases, ranges between 200 and 500 grammes (7 oz. to 18 oz.; but it sometimes happens that as much as one kilo (2½ lbs.) may be discharged. Occasionally cases come to our notice where the urine is free from sugar for some time, but contains as much as ever shortly afterwards (intermittent diabetes).

In regard to *urea*, it is generally believed that its excretion is considerably increased in diabetes. The increased quantity of urea discharged in diabetes may be twice or three times the amount normally discharged during twenty-four hours, and is undoubtedly due to the large quantity of food, especially meat, which diabetic persons consume. It must be considered as coming from the increased quantity of albuminous material, which has been introduced with the food and undergone the usual changes within the organism. To strengthen this assertion we give at the end of the chapter an interesting case, reported by von Mering. But there are also cases in which the excretion of urea, to a considerable extent, depends undoubtedly on the decomposition of the albuminous elements of the body itself, viz., cases in which the amount of nitrogen contained within the food is considerably less than the amount of nitrogen which is excreted with the urine. Such a case has been reported by Frerichs in the "Annales of the Berlin Charité Hospital," in which, according to the examinations of v. Mering, a diabetic patient, within twenty-one days, discharged 500 grammes more of urea than a healthy person did during the same period, though they both took the same amount of nourishment. It should be stated, however, that the patient during this period lost 7,500 grammes of his weight. The assertion that the excretion of urea and of sugar go hand in hand and stand in a parallel relation, is sufficiently contradicted by this case. The excretion of



urea was increased as well with mixed as with purely nitrogenous food, whether large or small quantities of sugar were contained in the urine.

The statement that *uric acid* and *creatinin*, as a rule, are diminished in quantity in diabetes, has been shown to be incorrect.

In a large number of cases 10 to 30 % *albumen* is found in the *diabetic urine*. This is most frequently observed in the more serious cases, during the second stage, sometimes, however, even from the beginning of the difficulty. It has not been positively decided as yet, which anatomical changes cause the albuminuria, but it seems very probable that in the majority of cases epithelial nephritis (v. anatomy) depending on the irritation caused by the saccharine urine, causes it. Atrophied kidneys have not been observed hitherto. Some writers say, that the frequent eating of eggs is often followed by albuminuria.

Besides those referring to the condition of the urine, the diabetic patient presents the following remarkable symptoms :

The larger the quantity of sugar contained in the urine, the *more excessive is the thirst, and the unpleasant sensation of dryness in the throat*, a symptom which often first attracts attention and leads to the detection of the disease. The law of endosmosis which plays such an important part in the animal organism, causes this condition. The blood being rich in sugar constantly draws the water from all the tissues of the body. The same law also produces *the dryness and roughness of the skin* and the more or less rapid throwing off of scales, the frequent *formation of furuncles*, the *cataractous clouding of the crystalline lens*, and with it progressive disturbances of the sense of vision, and finally the *flabby and scorbutic condition of the gums* with *loosening and decay of the teeth*. Also the *phthisical and gangrenous* changes which are so frequently developed by the same cause.

The sugar, which is introduced with the food containing starchy and saccharine material, cannot be utilized by the diabetic patient; the sugar contained in this class of food does not undergo its physiological metamorphosis to become finally carbonic acid and water : it is not consumed, it does not participate in the production of the animal heat, and therefore the organism demands the introduction of muscle and meat sugar, which are contained in flesh-diet. But these two varieties of animal sugar are contained in meat in small quantities only, and it is therefore necessary for the diabetic patient to consume a very large quantity of meat. Diabetic patients have an appetite, a desire for food which may be truly characterized by the expression, *voracity*. Even while the stomach is entirely filled, his appetite is satisfied but for a short time, he soon expresses the most urgent desire to eat again. The amount of animal sugar taken, however, is not sufficient for the production of all the animal heat which is required by the physiological law : the diabetic patient frequently feels chilly, his temperature is generally somewhat below the normal, being about 36° C. 97° F. Only if inflammatory changes take place in the lungs towards the end of the disease, or if extensive furunculosis is developed, do we find the temperature of diabetic patients elevated.

Notwithstanding the introduction of large quantities of meat, the diabetic patient soon begins to emaciate, the subcutaneous adipose tissue disappears, weakness and debility are experienced, *passion for sexual intercourse* is lost almost altogether, and death takes place finally by asthenia, or with the symptoms of phthisis pulmonalis.

The *duration* of diabetes is generally over a period of from six months to three years, but cases occur where diabetic patients live for six, eight, ten, and even for more years, notwithstanding the disease.

(To be concluded next week.)

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## PERISCOPE.

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### COLLABORATORS.

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*Dermatology:*  
HENRY G. PIFFARD, M.D.  
*Diseases of the Nervous System:*  
EDWARD C. SEGUIN, M.D.  
*Diseases of Women and Children:*  
FRANK P. FOSTER, M.D.  
*General Surgery:*  
EDWARD J. BERMINGHAM, M.D.

*Genito-Urinary Disease and Syphilis:*  
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*Ophthalmology and Otology:*  
SAMUEL B. ST. JOHN, M.D.  
*Orthopedic Surgery:*  
NEWTON M. SHAFFER, M.D.

*Practical Medicine:*  
E. DARWIN HUDSON, JR., M.D.

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### THE INFLUENCE OF POSITION OF THE BODY ON THE CIRCULATION OF THE BLOOD. BY JOSEPH LISTER, *British Medical Journal*.

At the meeting of June 18th, the academy of medicine was treated to a communication by Professor Lister on the influence of position of the body on the circulation of the blood. The gist of the communication was to show that, in the elevated position of a limb, the anæmia which resulted was due neither to the gravitation of the blood contained in the arteries, nor to paralysis of the vaso-motors, but to reflex action, caused by the depletion of the veins and the contraction of the muscular fibers of the arteries. Mr. Lister gave practical illustration of his theory on the person of one of the *employés* of the academy, who readily consented to submit to the experiment, which consisted of applying an elastic bandage to the root of a limb which is kept in an elevated position for a few minutes; the arm was then lowered, and, although the bandage was retained in its place, the arm continued to be bloodless in appearance; finally, the arm was raised again and the bandage removed, while the member was kept in that position for a certain time. The redness was seen rapidly to return notwithstanding the position which before rendered the limb pale, and then to get pale again before the application of the tourniquet. Mr. Lister demonstrated his theme by other examples, and concluded his very interesting communication by showing the practical application of his theory and the good results that may be obtained by the elevation of parts that are the seat of inflammation, and referred also to the beneficial effects of the method employed in the treatment of epistaxis by raising the arm above the head, the *modus operandi* of

which is the production of reflex contraction of the arteries of the arms, and, consecutively, sympathetic contraction of the arteries of the face; hence the cessation of hæmorrhage. This new theory of the phenomena just referred to seemed rather to startle his hearers, but they were also somewhat disappointed, not with the theory so ably propounded by the eminent surgeon, but when he made his appearance on the tribune it was naturally expected he was going to treat on the peculiar method of treatment which bears his name in surgery, and which has justly obtained for him a world-wide reputation. Mr. Lister's communication, which will be found *in extenso* in the *Bulletin de l'Académie*, has been made over to a commission, composed of MM. Richet, Vulpian and Broca, for examination.

#### CAUSES AND CURE OF INSOMNIA.

Dr. Sawyer observes that insomnia is one of the commonest complications and consequences of a vast variety of morbid states. Pyrexia, physical pain, coughing, dyspnoea are all conditions which prevent or shorten sleep. Such insomnia may, for the most part, be controlled either by the exhibition of remedies which directly promote sleep—hypnotics, or by the adoption of measures which combat the cause of the insomnia, by reducing fever, by palliating pain, by checking cough, or by relieving cardiac disturbance. But there is another form of sleeplessness, which may be called *insomnia per se*, or simple inability to sleep, for which it is difficult an adequate cause, but which seems to depend upon inability on the part of the brain and nervous system generally to adapt themselves to the conditions that are requisite for sleep. It is more common in the upper middle class than amongst others, and especially in those of a high mental endowment. There are, he thinks, three varieties of this form, psychic, toxic and senile. In natural sleep the brain is anæmic and inactive, hence any cause that prevents due repose of a sufficient number of the cerebral cells, or sustains cerebral hyperæmia, will prevent sleep. Examples of psychic insomnia may be found where severe and sudden emotional shocks, or prolonged mental strain affect men of nervous temperament. The patient is dull and listless, the eyes wanting in vivacity, complexion sallow, headache is present with occasional giddiness and disturbances of the senses, twitching of the muscles. In toxic anæmia the cause of the sleeplessness acts primarily upon the vessels of the brain, giving rise to some degree of arterial hyperæmia. The external poisons thus acting are tobacco, alcohol, tea and coffee, the internal are certain effete products of tissue metamorphosis which accumulates in the bodies of gouty patients or of those whose kidneys act deficiently. The insomnia of these cases he believes to be due to the maintenance of a state of high tension in the cerebral arteries. In the senile form of insomnia the sleeplessness is due to senile degeneration of the smaller cerebral arteries, which are physically unable to adapt themselves to the condition of relative arterial anæmia, which is requisite for healthy sleep. In the treatment of insomnia, soporifics must often be used. Of these, the



chief are chloral, opium, morphia, the bromides, Indian hemp, alcohol, and affusion with cold water. In psychic insomnia, Dr. Sawyer prefers chloral. Change of air and scene and rest are essential. In the well nourished, bromide of potassium is the best hypnotic, in 30-60 grain doses, combined with tincture of ergot, or of digitalis. Overworked men are often anæmic, and require iron, with a little alcohol, at night. Exercise may generally be enjoined. In gouty lithiasis, with a pulse of high tension, he has confidence in the curative effects of colchicum, supplemented by the use of dilute saline purgatives, such as Pullna, Friedrichshall, Hunyadi Janos, or Rakoczy waters. Senile insomnia is very obstinate, but perhaps in the bromides, with full doses of hops or henbane, we have the best and least harmful means for its relief.—*Lancet*, June 15 and 17, 1878.

### NEWS ITEMS AND NOTES.

**Is Syphilis Communicable through the Milk?**—With a view of obtaining facts bearing on this important question, Dr. R. Voss inoculated three prostitutes with the milk expressed from the breast of a syphilitic woman. The first was herself syphilitic, and the result, as was anticipated, was negative. The second was suffering from an attack of urethritis, and no effect followed the experiment. The third was a young girl, sixteen years of age, who had never had syphilis. She entered the hospital September 16th, with urethritis. The milk was injected subcutaneously on the 27th. The immediate result was the formation of an inflammatory swelling, which soon became an abscess, and which was healed October 24th. On the 3rd of November (forty days after the injection), a papular eruption appeared around the point of the injection, and five days later a maculopapular syphilide appeared on other portions of the body in addition to an adenitis. The patient was at once treated with mercurial inunctions, and all of the syphilitic symptoms rapidly disappeared. From this Dr. Voss considers there can be no question but that syphilis can be communicated by the milk as well as by the blood.—*Petersburg Med. Wochenschr.* 23, 1876; *New York Med. Jour.*, Feb., 1878.

**Gymnastic in Schools.**—The study and practice of gymnastics are to be made compulsory in all the State schools in Italy. The apostle of physical culture in that enervating climate is Sebastian Fenzi, the son of a Florence banker. He built a gymnasium at his own expense in that city, and from that beginning the movement has extended from city to city. He has preached gymnastics to senators and deputies, to the syndic and municipal counsellors, and even to the Crown Princess now Queen. He especially inculcates its advantages on all mothers of families, as likely to increase to a remarkable extent the personal charms of their daughters.—*Med. and Surg. Reporter*.

**Hydrophobia.**—At this time anything that bears in any way on the subject of that much dreaded disease, hydrophobia, is of interest. Dr. Alexander Hadden, of this city, recently read a paper before a section of the American Institute, that has been widely copied in

papers throughout the country. He maintains that too much blame is thrown upon that most faithful of man's brute friends, the dog, as causing this disease, and supports his view by the following statistics. In the year ending June 30, 1870, there occurred 333,169 deaths from all causes in the United States. Sixty-three of these are put down as due to hydrophobia; thus in a population of over 40,000,000, out of 28,729 deaths in this city, during 1874, only five are charged to hydrophobia. In 1875, out of 30,709 deaths, there were none from hydrophobia. In 1876, with 29,122 deaths, there were but five from hydrophobia. During the twenty-five years ending in 1872, there were in England and Wales, 11,220,724 deaths, 373, of which were credited to hydrophobia. That all the cases credited to hydrophobia, were correctly so placed, the Doctor doubts very much; and further claims, that some blame at least should fall on the cat, fox and wolf. The doctor concludes from the above statistics, that the persecution at present carried on against the dog is, in a certain measure at least, unjust.

Both for utility on large sheep farms, and as rendering the animal a safer family pet, Dr. Hadden, advocates castration, it rendering the animal less fond of associating with others of its kind, while it in no way unfits him for a watch or shepherd dog. The great fault of the non-castrated dog being, that he is apt at times to do much damage by killing the sheep. In the year 1865, the damage done to sheep in the U. S. by the dog, was estimated at about \$2,000,000, 500,000 sheep. He is thus less liable to inoculation by his fellow, and less apt to give use to the frequently disgusting actions on the public streets. The article of which this is but a brief summary, will bear careful study, and differs from most articles on the subject of hydrophobia, in not being dictated by a spirit of fanaticism.

**Nitrate of Lead in Epithelioma and in Onychia.**—G. Calletti states that he has recently effected a cure in three cases of epithelioma, in one of which the part affected was the nose, in a second the cheek and in a third the sternum. The mode in which he applied the remedy was by dusting the powder over the affected part, and recovery took place, when this had been done about four times. Two obstinate ulcers of the foot which had proved rebellious to other methods quickly recovered under the same treatment. Vanzetti has recently recommended the use of the nitrate of lead in onychia maligna.

**Turpentine in an External Application in Small-Pox.**—Dr. Farr, of Lambeth, ascribes great value to turpentine as an external application in small-pox. He claims that it at once relieves any smarting or irritation, effectually corrects the unpleasant odor given off in the more confluent form of the disease, and seems in a marked degree to arrest pustulation, thereby modifying and sometimes entirely preventing pitting. In consequence of its powerful antiseptic and disinfectant properties, it tends, moreover, to prevent the spread of the infection. Mr. Farr uses it in the proportion of one part of rectified spirits of turpentine to three or four of olive oil, and applies it night and morning by means of a feather.—*The Lancet May 11.*

# THE HOSPITAL GAZETTE

AND

## ARCHIVES OF CLINICAL SURGERY.

A WEEKLY JOURNAL OF MEDICINE, SURGERY AND THE COLLATERAL SCIENCES.

EDITED BY

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[The editors hold themselves in no way responsible for the views expressed by contributors.]

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### LECTURES.

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#### ANTISEPTICIS AND DISINFECTION IN SURGERY.

A Lecture Delivered at the Long Island College Hospital, Brooklyn, N. Y.

BY

JARVIS S. WIGHT, M.D., Professor of Surgery.

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Gentlemen:—The term *Antisepticis* brings us face to face with the *germ theory*. And we can not go on without giving this theory some consideration. At the out-set let me make the following statements, namely :

1. A germ is matter under organic relation :—it is an organism.
2. A germ is the organic link between two organisms.
3. One of the linked organisms is a parent and the other is an off-spring.
4. The parent and the off-spring are called *bacteria*.
5. A germ comes from a bacterium.
6. A bacterium comes from a germ.

Our experience is that all animals come from eggs ; and that all vegetables come from *seeds* :—but the essential part of an egg or a seed is a germ. One great question of modern science is *can the germ, de novo, that is, come into being spontaneously ?* I do not propose at present to discuss the question of spontaneous generation. But permit me to note the important fact, that bacteria, in one way or another come into such relations with the injured and sick, as to claim our practical attention.

The germs that the antiseptic surgeon has to deal with are called *septic germs*. These germs are so small that we can not see them with the best microscope. They are too small to be seen ; or they are so transparent as not to obstruct light enough to delineate their forms.

But the bacteria—the out-come of the septic-germs—can be seen through the microscope. They are named bacteria because they look



like rods. Singly these little rods do not seem to amount to much, but collectively they will be found to work very great mischief.

Now the assumption is, and perhaps the fact is, that there are such things as septic germs: that there is something out of the body, or in the body, eventuating in bacteria. Briefly we find myriads of little beings swarming in living, dying, or dead matter: either as beasts of prey, or as scavengers—as tigers, vultures, or crows, all striving to get food and drink.

The septic germ is a harmless thing as long as it remains a septic germ. In such case, it no doubt would be like any other particle of dust that floats in the air. But it has dormant energies, that only need an appropriate soil for development—a soil made up of living, dying, and dead organic matter. The bacteria swarm where the carcass is; and what was under the domination of cells is invaded by bacteria.

The bacterium is said to be a vegetable: but it has no root, no leaf, and it moves from place to place like an animal. And one might desire to call the bacterium an animal; and yet it has no foot, no hand, and no head. One could find no difficulty in telling the difference between an oak and an ass; but to tell the finer differences between the cell of a vegetable and the cell of an animal would involve more knowledge than most of us have. At any rate, the bacterium feeds on organic matter; organic matter goes in, goes through, and goes out of the bacterium. The bacterium ingests, digests, and egests. There is food, there is organization and there are waste products.

In this place it may be noted, that organized matter has in general a groundwork of cells. The body is a community of cell-units, for each cell has a life of its own. A cell is a small organized form. All the cells of the body are co-related; and in general the cells of the body may be called nutrition cells. What we eat and drink finds its way to the nutrition cells. There is ingestion; there is digestion; and there is egestion; there is pabulum; there is organization; and there are waste products. We constantly speak of absorption, nutrition, and excretion. But we may truly say that the nutrition cell ingests, digests, and egests. The elements of the nutrition cell are constantly being "composed" and "de-composed." The molecular pendulum vibrates day and night, summer and winter; and when it does not deviate from the normal amplitude, there is physiology, that is, *health*; but when it does deviate from the normal amplitude, there is pathology, that is, *disease*. In one case, there is physiological decomposition; and in the other case there is pathological decomposition. But let there be *somatic* death and cell-death, and then there will be putrid decomposition. The organic forms will dissolve under the influence of physical forces and the touch of the bacteria: in a word, there will be *putrefaction*, and there will be the waste products of putrefaction.

Let us study more particularly the relations of the nutrition-cell and the bacterium. The bacterium invades the physiological cell or the pathological cell. Perhaps the septic germ nests in the waste

products of the cell, or in a dead cell, and there develops into a bacterium—who knows? At any rate, the bacteria congregate among the sick and the dead cells, and sometimes among the healthy cells. The cells give off waste products, and the bacteria give off waste products. To be sure, there are two processes going on here—one among the community of cells, which are trying to maintain their organization; the other among the bacteria, which are invading the cells. Now, it is for this double kind of process that we also have a name—I mean *sepsis*.

And what is more, there may be two abnormal conditions: (1.) There may be a result brought about by septic germs. (2.) There may be a result in which septic germs have no part. Let me illustrate: A spent ball contuses the thigh of a soldier. The skin is not broken; it remains impervious to septic germs: the skin is a better *cover* than all the antiseptic gauze in the world. A simple mechanical injury has disorganized the subcutaneous structures. There has been an interference with the normal on-going of the cells. Apparently nothing could be more simple, and yet the results are complex. The thigh inflames; something unusual is taking place in the tissues; the cells in the thigh do not act as they did before the injury; they deviate from their normal conduct; some of the cells are killed at once; some are left in a dying condition; and some are able to continue their life. The cells environing the more central parts of the injury seem to be trying to *repair* the damage done by the ball. They ingest, they digest, they egest, and they *proliferate*. There are no bacteria among these dead, these dying, these proliferating cells. The waste products are encased by the wall of "limiting fibrine," and protected by the integument. There is great general disturbance; nutrition has deviated from its normal standard; it is not exactly nutrition; the injured cells are playing the part of septics, that is, there is one kind of surgical fever. *There is something like sepsis without the septic germs.*

It is plain, therefore, that nutrition, sepsis, and putrefaction have some points in common; these are consumption, organization, and waste of matter. There is the continuous motion of particles into, through, and out of organic forms—a composition and a decomposition. And it will be especially important to note these facts as we go on in our efforts to understand *antisepsis* and *disinfection* in surgery.

And here we come to important questions:

1. I need not tell you how important it is to remove the waste products of normal nutrition—to remove them not only from the body, but from the habitation; because they are especially poisonous to life. Who can live on urea, carbonic oxide and excrement? We must look to our sewerage and ventilation; for the very genius of death comes from the sewer and inhabits crowded rooms with impervious walls. Can the yeast cells live on alcohol? Neither can the nutrition cell live on urea. Preventive medicine is the most desirable medicine.

2. It is even more important to remove the waste products of degeneration, inflammation, suppuration, and repair from the body, the



bed, the room, and the habitation. This is so self-evident, that I need not insist upon it; and yet, shall I say it? It is sometimes so little recognized, that many lives are lost every year from the poisonous effects of the waste products of abnormal nutrition. *I need not tell you, that the nutrition cell cannot safely consume its waste products, when you already know that carbonic oxide and urica will cause the body to perish.*

The theory is that the air is full of germs, that they get on our hands and instruments, that they penetrate our sponges and bandages, that they fall on our patients' wounds, that they get everywhere. The practice is, that our hands, instruments, sponges and bandages must be disinfected. The part to be operated on and everything that comes near it must be enveloped in antiseptic spray. The operation must be done and the wound must be dressed while the antiseptic spray is falling. The septic germs must be put in a condition so that they cannot become bacteria. They must be prevented from invading the proliferating cells. The supposition is, that if we can keep out the septic germs, all will go well. To be sure this would a very great gain. For the theory and the practice concur in some respects. But shall we count as nothing the shock of an injury or an operation? Is the continuous drain of suppuration a harmless thing? Shall we say, that bacteria destroyed a patient who, after an operation or an injury, died because he had degeneration of the lung, the liver, or the kidney? Shall we overlook gravitation, heat, light, affinity, food, air, drink, climate, and *cleanliness*, and converge our attention on the bacterium? One would suppose nowadays, that the universe was managed after the manner of the germ theory.

In subcutaneous injuries, a layer of living tissue prevents the intrusion of septic germs. And one might suppose, and the theory points to this, that a superimposed stratum of antiseptic gauze would put things in a condition like a subcutaneous injury, and that the life of the patient would go on just as well in one case as in the other; but this could not be, for dead tissue cannot in any true sense take the place of living tissue. And as we often have to cut open the living tissues to let out the waste products, in order that the nutrition cell may not work by the side of its dying and dead associates, or be compelled to consume its own waste products, so for a stronger reason do we often have to keep away and remove dressings, that obstruct the outflow of the waste products of repair. Thus you see it is not alone a question of keeping out and putting out the germ and the bacterium, but it is a question of *removing waste products*. It is more—it is a question of what kind of cells are injured; are they physiological? or are they pathological? have they a power resistance? or will they abandon their organization from the slightest disturbance? Again, it is more—it is the possibility, that we may be able to sustain the injured nutrition cell in its attempt to continue its life during a contest with the bacterium.

But suppose our case has sepsis when we first see it, or that after we see it we cannot keep the septic germ and the bacterium out of it.



Briefly the septic germ got in through the surface of the wound, was ingested with the food and drink, or was inhaled with the air. What shall we do with the case?

There arise here some important considerations in regard to (1) the temperature of the nutrition cell, (2) the temperature of the septic germ, and (3) the temperature of the bacterium;—in so far as this temperature is compatible with life.

The temperature of the nutrition cell has a normal variation of about two degrees. In disease, the temperature of the nutrition cell may go down twenty degrees, or it may go up twelve degrees, with continuance of life. This gives a variation of about thirty degrees; but somatic death often follows within a much less variation. In cases of frost-bite, however, the affected parts may recover from the effects of a remarkably low temperature. The septic germ may be frozen and thaw out, and then germinate. It is said that tangible germs keep for themselves little spaces in the ice that environs them; from these they are liberated by heat, and then grow. Grains of wheat and corn will germinate after exposure to very great cold. Do not little plants grow on the surface of the arctic snows? And we have every reason to believe, that the septic germ will germinate after exposure to very great cold. In fact, we have sepsis in our houses and hospitals during the coldest winters. And I do not doubt, that the septic germ can endure a lower degree of temperature than the nutrition cell. On the other hand, the seeds of some plants can resist for a short time the heat of boiling water; and so far as we now know, the septic germ can endure a higher degree of temperature than the nutrition cell. Also, the bacterium can live in a wider range of temperature than the nutrition cell.

There is a contest between the cells and the bacteria. The bacteria keep warm by the fires of the cells, whose oxygen they take in, whose substance they consume, whose bodies they devour, whose habitation they destroy. *In the first place, the living body must be kept as nearly as possible to its normal standard of physiological activity; in the second place, the septic germ must be kept out of the living body, if possible; and in the third place, the bacterium must be put out of the living body, if possible.* To keep out the septic germ, and put out the bacterium from the living body, is the business of the anti-septic surgeon; *but a greater work than this is to defend, protect, and strengthen the nutrition cell.*

We must meet the issue on a practical basis:—Heat sufficient to destroy the septic germ and the bacterium, will destroy the nutrition cell. And cold enough to devitalise the septic germ and the bacterium, will cause cell-death and somatic death. We cannot rely on heat and cold for the treatment of *sepsis*. But we desire to *kill* the bacterium, and keep the nutrition cell *alive*. Are there any agents that can do this work? Let us pass in review some of the *Anti-septics* and *Disinfectants*.

I. *Alcohol*: is a waste product of the yeast-cell. Neither the nutrition cell, nor the yeast-cell, nor the bacterium can live on alcohol, which is in general poisonous to cell life. Small quantities of alcohol

will inhibit the activity of the nutrition cell, which will then give off a smaller quantity of waste products. There will be less waste material for the bacterium, and the energy of the nutrition cell will be conserved. Also the activity of the bacterium will be more or less inhibited—if it be not at times entirely suppressed. Alcohol may not save the patient from the destructive effects of sepsis—but it will do good work. Practice here agrees with theory: Small doses of wine, brandy, or whisky, will be useful in a case of sepsis.

II. *Quinia*: is the product of a vegetable cell. Its great power over malarial fever sepsis is very famous. The theory in regard to the action of quinia is two-fold: 1 it supplies the blood with a *quinoid material*—an anti-zymotic; 2 it *inhibits* the amoeboid motions and the organic processes of the nutrition cell. As quinia inhibits and destroys malarial germs?, so we infer that it tends to inhibit and destroy the septic germs and the bacteria of surgical sepsis. In fact, quinia, both internally and externally, is of great service in the treatment of *surgical sepsis*.

III. *Carbolic Acid*: is, as it were, a product of vegetable cells. It is very destructive to cell-life. It kills and it preserves—it is truly an antiseptic. It changes animal tissues so that bacteria cannot consume them. It seems to fix, like a *mordant*, the molecular grouping of the cells, so that simple physical decomposition cannot take place. The supposition is, that the bacteria are at work in the cells and waste products of a wound, and are penetrating deeper and deeper. Carbolic acid, in oil or water, is applied locally. A layer of cells is inhibited or destroyed. At the same time the bacteria in this layer are also inhibited or destroyed—and this is of advantage to the community of cells imperiled. It is better that a few individuals should be killed than that an entire community should perish. But this is not the only action of carbolic acid. It has anodyne and astringent powers. And those who claim *all* the good effects of carbolic acid in sepsis to be due to its antiseptic powers may be justly charged with entertaining one-sided views. Let me add, that carbolic acid is a **very reliable agent for preventing and treating sepsis**.

IV. *Chlorine*: deserves to be mentioned, as a powerful disinfectant. Chlorine has a very strong affinity for hydrogen, and will take the hydrogen out of the organization of the bacteria, so that the bacteria will perish. The waste products of nutrition and sepsis contain hydrogen. Chlorine will take the hydrogen out of these products, so that septic germs cannot have an appropriate soil in which to be developed into bacteria. A chlorinated solution is admirable to wash away the waste products of wounds and ulcers. Such a solution is very efficacious as a bath for hands and instruments before using them in operations. And there is probably nothing better to disinfect the wards of a hospital. So that for certain kinds of work, chlorine is better than carbolic acid. This is especially true of chlorine, when used to destroy the odorous products of extensive suppuration. First, preventing the absorption of deleterious matters; second, preventing the inhalation of poisonous gases, which do harm by their presence and which take the place of so much pure air.



V. *Oxygen*: as a normal part of the air is especially useful in sepsis. But oxygen must not be contaminated by the waste products of nutrition and sepsis; for these waste products are not only deleterious, when absorbed from the foci where they have been generated, but they are notably deleterious, when they get into the air and are then inhaled, and so go into the blood. In either case the nutrition cell gets a poisonous dose of waste products; but in one case, a normal quantity of oxygen cannot get into the system—and this would be the most unfortunate case. Diminish the normal quantity of inspired oxygen, and in addition, mix poison with it, and the nutrition cell will not be so well able to resist the invasion of the bacterium. It is important to give the well, pure air; it is even more important to give the sick, pure air; for the sick are weak, and the well are strong.

The above are some of the means by which we can combat and possibly prevent surgical sepsis. I will not now take time to enumerate other means. I have already told you enough to enable you to see the simple and great principles of a sound practice. But let me insist on the urgent need of removing and neutralizing the waste products of nutrition in disease as well as in health; for I warn you against the perilous influences of these products. *Remove and neutralize them with fresh air, with chlorine water, with incisions and with drainage tubes.* And there are three things of prime importance in surgical practice, namely: I. Feed the nutrition cell; II. Drain away the waste products; III. Handle and dress the injured part carefully; and in addition, keep out the septic germ and put out the bacterium.

In the next place, let us make some definitions and illustrate them, in order that we may have clear conceptions of antiseptics and disinfection.

*First.—An antiseptic is a preventer of sepsis.*

*a.* Anything that will prevent *putrefaction* in dead animal matter is called an antiseptic. 1. The agent may environ the putrescible matter. 2. The agent may be applied to and penetrate the putrescible matter. 3. The agent may both environ and penetrate the putrescible matter.

*b.* Anything that will prevent the development of bacteria among living cells, whether healthy or morbid, is an *antiseptic*. 1. The agent may simply environ the living tissues. 2. The agent may penetrate the living tissues. 3. The agent may both environ and penetrate the living tissues.

*c.* Hence, an *anti-septic* may act outside of the tissues; it may act inside of the tissues; it may act both inside and outside of the tissues. In any case, an *anti-septic* prevents sepsis.

*Second.—A disinfectant is an arrestor of sepsis.*

I. When septic germs get among the nutrition cells, and develop into bacteria, there is said to be *infection*. It is probable that the septic germs undeveloped into bacteria do not cause much disturbance. It is also probable, that some bacteria do not interfere much with nutrition.



II. Any thing that will destroy septic germs in the environments of dead tissues, disinfects the environments. It also antisepts the dead tissues.

III. Any thing that will destroy septic germs in the environments of living tissues, disinfects the environments. It also antisepts the living tissues.

IV. Any thing that will arrest putrefaction, is called a disinfectant. The agent destroys the bacteria. It may arrest the *septoid* action of the cells after somatic death.

V. Any thing that will arrest *sepsis*, is called a disinfectant. The agent destroys the bacteria and the septic germs. It may inhibit or arrest the deviated action of the cells.

VI. Hence, a disinfectant may act outside the tissues; it may act inside the tissues; it may act both inside and outside the tissues. In any case, a disinfectant arrests sepsis.

Finally, we have no special term to denote the action of those agents, which *prevent* the ordinary deviations of the nutrition cell. These agents act like anti-septics. And we have no special term to denote the action of those agents which *arrest* the ordinary deviations of the nutrition cell. These agents act like disinfectants.

It will be seen therefore, that *anti-sepsis* and *disinfection in surgery* are of paramount importance. The hands and instruments of the surgeon must be disinfected, so that they will not infect the patient. Also the environments of the patient must be disinfected so that they cannot infect the patient. And it will also be seen that nutrition is of paramount importance. The patient must have good food and drink; he must have pure, fresh air; and above all he must have the waste products of nutrition and sepsis removed—*so that he may be clean.*

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## TRANSLATIONS.

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### DIABETES MELLITUS—GLYCOSURIA.

BY

DR. C. F. KUNZE.

Translated from the German.

BY

PAUL H. KRETZSCHMAR, M.D., Brooklyn, N. Y.

[*Concluded from last week's GAZETTE.*]

*Pathogenesis.*—No one of all the theories which have been proposed, has been accepted as the true explanation of this difficult subject. The theories which have been brought forward are very numerous; the best of them are those of Claude Bernard, Pavy, Secgen and Cantani. According to *C. Bernard*, sugar is formed in the liver independently of the kind of food taken, even with an exclusive flesh-diet. He bases his assertion principally on the fact that sugar is found in the blood of the Hepatic veins, while there is none in the blood of the Portal vein. He says that Glycogen liver-starch, a variety of sugar, is formed first, and from that,

by the influence of a certain ferment which is present in the liver, sugar. The sugar is now taken up by the blood and consumed in the lungs. If an excessive production of sugar takes place in the liver, all of it cannot be consumed in the lungs, a part of it enters the arterial circulation, which otherwise does not contain any sugar, and is excreted with the urine.

*Pavy* tells us that the formation of sugar in the liver is not a physiological act, but takes place post-mortem. According to his view the formation of glycogen depends on the kind of food taken, being principally produced by certain changes which carbohydrates, introduced with the food, undergo. He also claims that glycogen undergoes further changes and is transformed into fatty matter which is used up in the formation of bile. Under pathological conditions only, is the glycogen taken up by the blood, transformed by the influence of a ferment into sugar and, as such, discharged with the urine.

*Seegen* considers that the discharge of sugar with the urine, always depends on an abnormal formation of sugar from the glycogen of the liver. He does not believe in a direct excretion of the sugar taken in with the food, as such. He also expresses the opinion that modifications of glycogen exist, which depend for their formation on the character of the food taken. He believes that glycogen, according to its origin, whether it comes from the carbohydrates or from albuminous material, has a different power of resistance against those ferments which cause its change into grape-sugar. This statement made by *Seegen*, that the discharge of sugar with the urine in any form of diabetes is due to the abnormal change of glycogen into sugar, is somewhat contradicted by the experiments of *v. Mering*, showing that glycogen, whether formed after the introduction of carbo-hydrates or of albuminous material, has always the same action against acids and ferments. The fact that, within so short a time as one hour after the ingestion of bread, a considerable amount of sugar is found in the urine, also militates against *Seegen's* theory. The absorption of sugar, its change into glycogen, the transformation of glycogen into sugar and the discharge of the latter with the urine *within one hour*, does not seem very probable. According to *Cantani* it is highly improbable that sugar can undergo such changes within the human organism, as to return to starch (glycogen, animal starch again, he says, on the same principle it also must be allowed, that within the animal organism, albumen may be formed from urea or creatine. He further says, glycogen or liver starch has its origin in the albuminous materials, as is shown by the fact that diabetic patients during the second stage of the disease, notwithstanding their exclusive flesh-diet discharge sugar with the urine, which sugar certainly could only have its origin in the glycogen which was formed from the albuminous material introduced with the food. Under normal conditions, no sugar is formed in the liver, only glycogen. Only in case no sugar at all is introduced into the system with the food, is the glycogen, which has been gathered in the liver, transformed into sugar—the liver, therefore, being a depot from which

sugar can be received, if the system needs it. The largest part, if not all of the sugar is taken up from the small intestines by the lacteals, the veins of the portal system absorbing but a small part of it. In the healthy condition, the sugar which is absorbed by the lacteals, does not pass through the liver, but is decomposed in the blood and forms carbonic acid and water. Cantani says, furthermore, that diabetes is a disease of assimilation, in which the sugar which has been introduced as such, and which has been formed in the physiological way by the changes which starchy matter undergoes in the human organism, is not used for the purposes of the animal economy. The sugar under such conditions cannot be of any value to the system at large, and is thrown off with the urine and other excretions as useless material. v. Diabetes mellitus, Klinipsa Vorträge von Cantani, ubarfatzt und vaûtpsa, von S. Hohn, p. 264.)

It would lead us too far, if we should undertake to bring before the reader any other of the numerous theories which have been laid down as to the pathogenesis of diabetes mellitus. But it must be mentioned that some observers, and among them Senator, doubt that glycogen and sugar can be formed from purely albuminous material. They believe that the sugar which is discharged by diabetic patients even while they are living on purely animal diet is derived from the sugar, glycerine and gluten which is contained in the muscles. They also think that the glycogen which is formed after the exclusive use of flesh-diet, originates only from those substances worthy the closest investigation of the physiologist. Especially in the neighborhood of the fourth ventricle almost every variety of degeneration has been found, while the abdominal organs (liver, pancreas) show no anatomical changes.

In the other variety which may be properly called *gastric diabetes*, the accumulation of sugar within the blood is due to some organic derangement of the digestive organs, degeneration of the liver, the pancreas, etc., while anatomical changes in the nerve centres cannot be detected. In consequence of these organic derangements the functions of those are disturbed in such a way, that "the sugar remains unfermented, unchanged and without being oxidized (consumed), is discharged with the urine" (Cantani).

Although the division of diabetes into two varieties leaves many points as dark as before, it is useful inasmuch as it depends on facts and offers some points of consideration which are of importance in regard to the prognosis and the treatment.

*Prognosis.*—Diabetes is a very serious disease which, with a few exceptions, terminates fatally. Almost all observers agree as to this prognosis, with the exception of Cantani, who claims that diabetes during the first stage can be cured with certainty and permanently. *The judgment about the curability of any case must necessarily depend principally on the question, whether the organic changes which cause the disease, are curable or not.* Wherever the primary question cannot be settled, the prognosis remains doubtful. There is some hope, at least for the continuance of life for some time, if an exclusive flesh diet can be borne well and if under its use the proportion of sugar in the urine



diminishes. If even under an exclusive meat-diet the quantity of sugar contained in the urine remains stationary; if albumen is present in the urine, if symptoms of phthisis pulmonalis become apparent, and if the emaciation of the patient is well marked, the prognosis becomes absolutely bad. Young persons generally cannot bear up under the disease as long as those of advanced age.

*Treatment.*—The treatment should consist principally in the regulation of the diet; pharmaceutical remedies have but little influence over diabetes. Without a rational dietetic management, nothing in the way of improvement should be expected from a diabetic patient. The diet should be regulated in such a manner as to deprive the body as much as possible of any material which would be liable to assist in the formation of sugar, and carbo-hydrates which are transformed into sugar and discharged as such, should be omitted. But not all forms of carbo-hydrates have an equally injurious effect. We know from the observations of Bouchardat, Külz and v. Mering that fruit-sugar and inuline (a carbo-hydrate which is obtained from the roots of different varieties of plants belonging to the species of *inulæ*), may be taken by diabetic patients even during the second stage, without causing any considerable increase in the amount of sugar which is discharged with the urine. On the other hand, all observers agree that food consisting of flour, bread, potatoes, rice, sago and sugar increases to a marked degree the discharge of sugar. Sweet wine and beer generally contains about 5 per cent. dextrose, have the same unfavorable influence. The patient may be allowed to take small quantities of milk, green vegetables spinage, endives, cauliflower, string beans, asparagus, lettuce, and almonds. Beef tea, meat, caviar, fish, oysters, crabs, eggs, cheese, butter, bacon, and other fats should make up largely the food of the diabetic patient. Of fluids, coffee, tea, and claret in moderate quantities may be allowed.

It has been tried repeatedly to bake a special kind of bread suitable for diabetic patients. Bouchardat recommended gluten-bread in 1840, but it contains considerable starchy matter, and is quite indigestible. Prout speaks highly of bread made of bran, which, however, contains a still larger proportion of carbo-hydrates, is more difficult to digest, and answers therefore not at all. Pavy prefers bread made from almonds, and of the different compositions which have been recommended as suitable for diabetic subjects, this one is perhaps the best. Very recently Külz has given a formula to make biscuits from inuline, which, notwithstanding its being a carbo-hydrate, is well borne by the diabetic patients.

For reasons mentioned before, the diabetic patient has an enormous appetite; he fills his stomach with large quantities of food, and disturbances of the digestive apparatus are very apt to occur. An exclusive meat diet does not agree with many patients, and it is very important that the patient should only adhere to it as long as no marked signs of disturbance of digestion are present. If, however, those symptoms occur, it is more advisable to let the patient have carbo-hydrates in small quantities; experience has taught us that this is the better way.

After the necessary attention has been paid to the regulation of the patients' diet, his way of dressing and his mode of living should be considered. Frequent—but not exhaustive—bodily exercise and warm clothing should be secured.

Among pharmaceutical agents, *opium* and its preparations undoubtedly take the leading position. Under the use of opiates the amount of sugar discharged with the urine frequently diminishes markedly. It should be given in large doses, about 0.1 to 0.3 (1½ to 4 grains) *pro dosi*, and it will be seen that diabetic patients bear such doses very well.

*Arsenic* has repeatedly been recommended. According to the observations of Saikowsky, animals that have been fed with arsenic for some time, lose all their glycogen, and neither Woorare nor Bernard's piqure produce diabetic symptoms in them. It is generally given in the form of Fowler's solution, beginning with five drops three times a day, and increasing the dose gradually to a considerable extent. Clinical experience, however, and theoretical teachings do not agree in this case. No favorable results, or no well-marked results, have been obtained from the use of arsenic.

Another remedy, which has been called a specific by Schultzen, is *glycerine*. Schultzen claims that in the normal condition the sugar which enters the system with the food is, by the influence of a ferment, separated into glycerine and its aldehyd. In diabetes, the same writer says, the separating ferment is wanting, and therefore sugar is discharged as such. The careful investigations of Blumentahl, Kussmaul, Kültz and v. Mering prove that glycerine has no beneficial influence on diabetes.

*Carbolic acid* (epstein), and very recently *salicylic acid*, which have been praised for their wonderful effect on many other and almost all diseases, have also been recommended against diabetes. Neither of the two remedies could, however, stand the test of practical investigation.

*Bromide of Potassium* has also been among the numerous remedies which have been at one time or another used against diabetes; its influence over the disease is of no great value.

Cantani claims that he has obtained actual recovery in many cases, by the use of *lactic acid*. He administers to the diabetic patient several gramms 30 to 45 minims of it during the day, for about four weeks, and keeps his patients at the same time on an exclusive meat diet. Cantani says that lactic acid assists in making the meat digestible, and that the acid in a certain sense takes the place of the sugar in the human organism. We approve of the use of lactic acid in so far as it, like hydrochloric acid, improves digestion. But we cannot see why lactic acid should be recommended for the reason, that in diabetes the sugar is not transformed, as in health, into lactic acid before its final decomposition. It also may be stated, that the same remedy of which we are told to make use in diabetes, and expect such favorable results, produces the discharge of diabetic urine, if given to animals.

For some time it was thought that by the use of *alkalies* the sugar

contained in the blood could be destroyed, and that the specific remedy for diabetes had been found. It was thought that the blood was not sufficiently alkaline to break up the sugar. This story, however, has been exploded long ago, and especially Poggiale, has shown that, to break down sugar with alkalies, a temperature of  $95^{\circ}$  C. ( $203^{\circ}$  F.) is necessary. He has shown that, if grape sugar and carbonate of soda be injected into the vein of an animal at the same time, just the same quantity of grape sugar was found to be excreted with the urine, as if it alone had been injected.

Of the mineral waters, those of Carlsbad, Vichy, and Neuenaber are highly recommended for their beneficial influence on diabetes. Hufeland was the first who recommended Carlsbad. The good results which have been obtained from the use of these waters, are probably largely due to the proper regulation of the diet, to which so much attention is paid at these places.

We also know from the observations of Bouchardat and Kütz that the amount of sugar discharged with the urine diminishes under the influence of bodily exercise.

Diabetic patients at home frequently live a sedentary and easy life, without adhering strongly to the proper diet; at the watering places, on the other hand, sufficient exercise in the open air and a diet especially adopted for the purpose, are made an essential part of the treatment. I am of the opinion, that these are the conditions for the favorable influence of these springs, and that similar temporary beneficial effects can be obtained at other watering places or even at home, independently of the composition of the mineral waters, if the other conditions are fulfilled.

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NEWTON M. SHAFFER, M.D.

#### *Practical Medicine:*

E. DARWIN HUDSON, JR., M.D.

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### THE ANTISEPTIC METHOD FOR CATARACT.

Prof. Alfred Graefe (*Arch. of Oph.*, 1878,) gives his experience in trying to apply the principles of antiseptic surgery to the extraction of cataract. At first he used cloths soaked in carbolic acid lotion either directly to the eye or with protective oil-silk interposed, but found the results no better than formerly, while sometimes the irritation of the ac. carb. induced œdema of the lids or even slight erysipelas. No better success was had with ac. salicylic. Boracic acid was more satisfactory and has been used extensively for the last year in about 120 cases. His method is to use instillation of atropine the day before operating, and just before operating to wash the eye



with a 2% sol. of ac. carb. The instruments are dipped in alcohol absolute and wiped with soft linen. During the operation, the parts are wiped dry with a sponge which has been soaked in the ac. carb. solution. The spray is not used as it is considered to embarrass the operator and annoy the patient, besides endangering the cornea. After the operation the orbital region is covered with sheet lint impregnated with boracic acid crystals which has also been dipped in a solution of boracic acid. This is covered with oil-silk, and cotton and the usual pressure bandage completes the dressing.—*S. B. St. J.*

#### NEW METHOD OF COMPRESSION OF THE ILIAC ARTERY IN AMPUTATION AT THE HIP-JOINT.

Mr. Richard Davy, of the Westminster Hospital, remarks that in all severe operations, one of the first considerations of the surgeon is to anticipate shock, and to prevent the loss of blood. He accordingly permits a patient to have a glass of wine or brandy and water about an hour before the operation, with a result that partakes more of a sedative than of a stimulant character; apprehension is assured; cardiac tone is gained; fitness for the ordeal is exhibited. The American surgeons devised pressure on the aorta for hæmostatic ends during amputations high up towards the pelvis. Lister arranged a horse-shoe clamp and screw-pad for compressing the aorta above the umbilicus. Dr. Davy saw this mechanism employed in Syme's operation on gluteal aneurism in 1860, and in 1874 he drew Mr. Holmes' attention, who was then lecturing in the College of Surgeons, to the possibility of controlling the aorta, common iliaes, and internal iliaes, by pressure through the rectal wall, which he considers a less serious procedure than compression of the aorta through the abdominal wall. Last January a favorable case presented itself for testing the value of the suggestion in a boy suffering from morbus coxae, and requiring amputation at the hip-joint. In the performance of the operation the right leg and thigh were emptied partially of blood by Esmarch's bandage, chloroform was administered, and about one ounce of sweet oil was injected into the empty rectum. A straight lever of wood run smooth and round out of a lathe was introduced *per rectum*; the small end was applied over the right common iliac artery between the bodies of the lumbar vertebrae and psoas magnus muscle; the projecting part of the lever ran nearly parallel to the left thigh. Mr. Bond readily compressed the common iliac artery by elevating the projecting arm of the lever, the perineal tissues acting as a fulcrum. As the lever was raised or depressed, so did the right femoral artery cease or continue to pulsate. The left femoral was undisturbed, beating with regularity throughout. A long square anterior flap was made by transfixion over the joint, the muscles and capsule were divided, and a short posterior cut severed the limb. The arteries were tied, sutures inserted, and the boy placed in bed. About a wine-glassfull of blood was lost. The boy recovered, with the exception of one or two small sinuses.—*Brit. Med. Jour.*, May 18, 1878.

## OCCURRENCE OF HERPES DURING THE ADMINISTRATION OF ARSENIC.

BY JAMES FINLAYSON, M.D., PHYSICIAN AND LECTURER ON CLINICAL MEDICINE TO THE GLASGOW WESTERN INFIRMARY.

A young lady, rather subject to acne of the face, was ordered in April, 1876, small doses of Fowler's solutions, to be taken thrice a day. This had a good effect, but I supposed the medicine had been stopped, as I was frequently seeing the lady casually, in connection with a more serious case, and I had not been spoken to on the subject again. It appeared, however, that she had been taking the medicine regularly on till August, although she said not always thrice a day, as at first. The medicine had not disagreed with the stomach in any way. She came from the country on August 19th, to consult me about an eruption on the right arm; it extended from the lower part of the upper arm down the back of the forearm and hand, including the back of the fingers. The eruption had been out for two or three days, and was associated with severe pain, sufficient to interfere with her sleep for several nights. There had been also considerable pain about the shoulder. The eruption consisted of clusters of vesicles situated on an inflamed base. The arsenic was stopped, and some local and general treatment prescribed. I did not see the eruption again, but I learned that it slowly died away without any complication arising.

The eruption in this case followed the long axis of the limb, as seems to be usual in cases of herpes affecting such parts.

Very soon another instance came under my notice at the *Western Infirmary*. A girl, twelve years old, was admitted with chorea on January 11th, 1877. She had had an attack of acute rheumatism when nine years old. She was ordered  $2\frac{1}{2}$  minims of the acid solution of arsenic thrice a day, along with iron, on January 12th; this was changed to three minims of Fowler's solution on February 20th, and on March 8th, this was increased to five minims. The chorea after a slight improvement had become worse, and her recovery was somewhat slow. On March 20th, patches of herpes zoster appeared on the left side of the chest, extending from the region of the cardiac apex, round towards the spine. No special pain attended this eruption, which was not by any means characterized by much inflammation. The eruption did not at all interfere with the recovery; this, indeed, became more distinct just about this time, and the child was shortly afterwards sent to the country.

Notwithstanding the cases adduced by Mr. Jonathan Hutchinson, some authorities doubt the reality of the connection between the use of arsenic, and the appearance of herpes; these cases are submitted as a small contribution to this subject, which has many points of great general interest.—*The Practitioner*.

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THE DIAGNOSIS OF ADHESIONS IN CASES OF ABDOMINAL TUMORS.

Mr. Spencer Wells, in his second lecture on abdominal tumors, delivered at the College of Surgeons, remarks that practically the ques-



tion of extent of adhesion to the abdominal wall is not of much consequence. The result is nearly the same to the patient, but the amount and intimacy of *pelvic* adhesions are matters of much greater moment. Supposing an ovarian cyst is adherent low down in the pelvis, between the uterus and rectum, or the uterus and the bladder, or on either side, the attempt to separate it is necessarily a dangerous one. If any blood-vessels be torn, it is difficult to find them, and although by artificial means a strong ray of light may occasionally be thrown to the bottom of the pelvis, and a bleeding vessel secured, yet this is a troublesome and difficult proceeding, and the results of these cases are by no means so satisfactory as when there are only adhesions to the abdominal wall. Such adhesions as the former may be pretty well ascertained by a careful examination of the pelvis by the vagina. The tumors do not move with the position of the patient, nor when she coughs, nor when the shoulders are lowered and the hip raised; and it is impossible, either with the uterine sound, or in any other way, to separate the uterus from the pelvic portions of the adherent tumor. Occasionally an ovarian tumor low down in the pelvis, will be met with which does move, from which the uterus can be separated, and need not interfere at all with ovariectomy; but if there be intimate adhesion pretty low down, the operation is not one that is likely to succeed.—*British Med. Jour.*, June 22, 1878.

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#### WEATHER AND HEALTH IN LONDON AND NEW YORK.

At a recent meeting of the Edinburgh Meteorological Society, Mr. Buchan read a paper on the above subject, prepared by Dr. Arthur Mitchell and himself. It was illustrated by charts, so arranged as to show a comparative view of the mortality of the two cities as influenced by the weather, on an average of the seven years ending with December, 1877. The mean annual temperature of London and New York was, he said, exactly the same, about  $57^{\circ}$  Fahr.; but New York had a summer temperature, during July and August, ten degrees in excess of that of London, while the winter temperature was ten degrees lower. Along with the great heat of the New York summer, there was considerable dryness of air; for, although the rainfall was more than that of London, the excess came in the form of heavy thunder-showers. In winter, too, a low temperature was accompanied by great dryness. The most important effect of the difference of climate was seen in the effect of the summer heat. At New York, in July and partly in August, when the temperature was so high, there was an enormous rise in the death-rate from nervous diseases, which did not occur in London to any extent. This increase was observed in the case of all nervous diseases, but particularly in sunstroke caused by the direct effect of sunheat. In 1871, the temperature in New York did not rise as high as usual, and the number of deaths from sunstroke was only twenty-one; while the following year was exceedingly hot, and the deaths from sunstroke were three hundred and twenty. Similar facts were noted in other years.



This feature largely gave its character to the curve for nervous diseases. Of deaths from convulsions, London showed a slight rise in the end of July and the middle of August; in New York, the rise was much more pronounced. The facts were similar in regard to inflammation of the brain. Suicides followed the same rule, New York showing a greater excess. A good many of the deaths from convulsions arose from complication with bowel-complaints. Now the higher temperature of New York in summer was very much felt in regard to bowel complaints. It was observed that, for three weeks, the London curve for these complaints was very high—300 per cent. above the average. But for New York, in the month of July, the curve rose nearly 100 per cent. above that of London; and what was very singular, there was a rise of 200 per cent. in mortality of persons above five years of age, to which London showed nothing like. The deaths from tabes mesenterica and scrofula showed an enormous rise in New York, as compared with London, during the summer months. Taking the whole population, and all diseases whatever, it was found that of those under one year of age, the London mortality for one week went about 90 per cent. above the average; while in New York, for a whole month, it was 140 per cent. above the average. Of children from one to two years old, the mortality in New York showed a great rise in the summer months, this arising almost exclusively from bowel-complaints.

In London the curve would probably not reach one-third of the height. Of children from one to five, the mortality in London rose a little in the summer months, but very little; in New York the rise was five or six times greater. The old age curve in London reached its maximum in the winter months and its minimum in the warmest season: in New York its maximum occurred in the spring months, and there was also a rise in the hot months of summer. It thus appears that the great heat of New York was more fatal, not only to children, but also to very old people. The paper then dealt with the usual special diseases, such as croup, bronchitis, pneumonia, etc., and with some of the zymotic diseases, showing how the mortality from them was affected by differences of temperature.—*The British Med. Journal.*

#### ABOUT BOOKS.

*Hand-Book of Ophthalmology.* By Prof. C. Schaeffer: Translated from the third German Edition, by Porter Farley, M.D. Philadelphia: J. B. Lippincott & Co. 1878, pp. 555. (New York, E. R. Pelton.)

This work is a very complete manual on ophthalmology and is especially deserving on account of its clearness and perspicuity of style, and the thoroughness with which it deals with the subjects of which it treats. It is divided into three parts. Part 1st treats of anomalies of refraction and accommodation—spectacles, ophthalmoscope, and

ophthalmometer— anomalies of the ocular muscles. Part 2d includes a consideration of diseases of the orbit, lachrymal apparatus, lids, conjunctiva, cornea, sclera, iris, lens, and vitreous body. In the final 3d part are discussed the normal fundus; diseases of the choroid, of the retina, and of the optic nerve; glaucoma and amblyopia.

The first part is particularly deserving of commendation on account of the clearness and accuracy of description. The anomalies of refraction are, for some reason, we know not exactly why, it may be on account of want of proper preliminary education, peculiarly difficult of mastery by the student. It seems, likewise, a particularly dry and uninteresting subject. In the present chapter it is rendered exceedingly plain, and after a careful reading of it, he must be a dull student indeed who does not obtain clear and satisfactory ideas. The author deserves credit for having rendered this part of his subject so plain and practical. As these features cause the work to be one of value to the student and the beginner in this branch of medicine, more advanced specialists will likewise find it valuable as it contains the latest and most reliable facts on the subject, and expresses clearly the peculiar views of the celebrated author.

Part two is likewise eminently practical. The directions for the numerous operations are terse and clear, and the merits of the different ones proposed to effect a given object, are impartially and intelligently discussed, while the author does not fail to recommend with good reasons, that to which he himself gives preference in any particular instance.

The third part of the work is fully equal to the first two. The descriptions of the ophthalmoscopic images observed in the various diseases of the fundus of the eye are all full and accurate. The pathological conditions are excellently described, and conflicting views and statements are avoided as far as consistency with truth will allow.

Everything being taken into consideration, the book is one of the best additions to ophthalmological literature that has recently been made. The translator's work has been done admirably, and Dr. Farley deserves the heartiest thanks of the profession, especially of that part of it who are unfamiliar with German, for having placed at its disposal, in such excellent shape, such a valuable work.

The publishers have likewise done all in their power to give the work the success it deserves, having printed it on fine paper and in clear readable type.

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#### NEWS ITEMS AND NOTES.

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**Chromate of Lead in Cocoanut Cake.**— These "cocoanut cakes" are spheroidal and flattened in form and have a *yellowish color*. They are found, when properly examined, to contain an appreciable quantity of chromate of lead. They must have a dangerous effect upon those eating them. The practice of coloring them should be prohibited.—*Med. and Surg. Reporter*.

**Zinc in Stoppers.**—India-rubber stoppers are used by some pharmacists to stopper bottles. A stopper was digested in water acidulated with sulphuric acid, thence filtered. Chlorohydric sulphuric acids did not produce any precipitates. A precipitate was formed by the addition of ammoniac sulphide; it was white. The stronger acids dissolved it. The fixed alkaline hydrates and carbonates produced similar precipitates. Zinc, therefore, exists in these stoppers. The zinc, I think, exists as carbonate.—*Med. and Surg. Reporter.*

**Royal College of Surgeons.**—At a meeting of the council, on the 11th inst., Mr. John Simon, C. B., F. R. S., consulting surgeon to St. Thomas's Hospital, was elected president of the college; and Mr. Luther Holden, senior surgeon to St. Bartholomew's Hospital, and Mr. John Eric Erichsen, F. R. S., consulting surgeon to University College Hospital, were elected vice-presidents. Mr. John Marshall, F. R. S., surgeon to University College Hospital, and Mr. Timothy Holmes, surgeon to St. George's Hospital, were re-elected members of the Court of Examiners. Mr. Jonathan Hutchinson, F. R. C. S., senior surgeon to the London Hospital, was elected Professor of Surgery and Pathology. Messrs. W. H. Flower, F. R. S., and W. R. Parker, F. R. S., were re-elected Hunterian Professors of Comparative Anatomy and Physiology; and Mr. B. T. Lowne, F. R. C. S., the Lecturer on Anatomy and Physiology. The Professorship of Dermatology, vacant by the resignation of Mr. Erasmus Wilson, F. R. S., to whom the college owes this very liberal endowment (£5,000), is just now in abeyance, as this gentleman is about to take part, with the Council, in making such modifications of the trust as would widen its scope, and allow the income to be applied in a far more general sense than at present, in aid of pathology and surgery. Dr. E. H. Sieveking, physician to Her Majesty the Queen, and Dr. J. S. Bristow, physician to St. Thomas's Hospital, were re-elected Examiners in Medicine. At this meeting the recently elected and re-elected members of the Council took their seats as such, viz., Mr. Edward Lund, of Manchester; Erasmus Wilson, F. R. S., of Henrietta Street, Cavendish Square; and John Gay, of Finsbury Place, South. The last pass examination for the diploma of membership, for the present session, will take place on the 19th inst.—*The British Med. Journal.*

**Horse Shoes.**—The *London Lancet* avers that from a physiological point of view nothing can be more indefensible than the use of horse shoes. The mode of attaching them by nails it believes to be injurious to the hoofs, and the probable cause of many affections of the foot and leg which impair the usefulness and must affect the comfort of the animal. It thinks that it would be found that the natural structure would adapt itself to any ordinary requirement.

There is, however, a wide difference of opinion on this point among authorities on horse management, and the problem is not likely to be finally solved until the experiment has been tried. There can be no doubt as to the additional power of *grasping* road-surfaces which would



be secured, to the advantage of the rider or driver and the relief of the horse, if shoes were not used. The experiment, to be all a fair one, must be tried with colts that have never been shod.—*Philad. Med. Times*.

**Prof. Karl Rokitansky.**—The death of Prof. Rokitansky is announced by telegraph from Vienna. He was born at Königgratz, in Bohemia, on February 20th, 1804, studied medicine in Prague and Vienna, and received the degree of Doctor in 1828. He was subsequently attached to the institute of pathological anatomy in Vienna, and was afterwards appointed demonstrator in the School of Chemistry. In 1841 he was made honorary director of the University of Vienna. He was esteemed in Germany as the chief of the Viennese school of pathology. His principal work—*A Manual of Pathological Anatomy*—was published in Vienna in 1842. Three years later it was translated into English by the Sydenham Society, and published in London. A grand celebration of Rokitansky's seventieth birthday was held, in the hall of the Academy of Sciences in Vienna on February 20th, 1884.—*The Med. Record*.

**French Surgery.**—A French correspondent of the *London Medical Record* is very severe upon French surgery. He says: "The first thing French surgeons have to learn is cleanliness in their own manipulations; cleanliness of their instruments and of the dressings. Then they have to teach the same to their house-surgeons, whose neglect, dirt, and cruel habit of carrying infection from patient to patient, are so ingrained that nothing short of a great effort can alter them. A complete reformation also is wanted in the dirty slovenly ways of the good Sisters. Neglect of cleanliness—that is the secret of the bad results of French surgery; and how bad they are in comparison with the rest of the world will never be known, for no reliable statistics are kept. A capital operation in some of the services here is little less than homicide. \* \* \* It is the practice of consultants of Paris to charge very high fees for the consultation or operation, and hand over part, sometimes half of it, to the practitioner who calls the consultation. Foreign patients should be on their guard against a practice which puts them up to the highest bidder. \* \* \* I believe such a custom is unknown anywhere else in the world, but I am assured, by well-informed authority, that it exists very largely in Paris, and has extended to very high quarters.—*The Amer. Med. Bi-Weekly*.

**American Dermatological Association.**—The next annual meeting of this Association will be held at the Grand Union Hotel, Saratoga Springs, N. Y., August 27th, 28th and 29th. Many important papers will be read. Regular practitioners are cordially invited to attend the meeting.

R. W. FAYLER, M.D., *Secretary*.

# THE HOSPITAL GAZETTE

AND

## ARCHIVES OF CLINICAL SURGERY.

A WEEKLY JOURNAL OF MEDICINE, SURGERY AND THE COLLATERAL SCIENCES.

EDITED BY

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[The editors hold themselves in no way responsible for the views expressed by contributors.]

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### EDITORIAL.

#### BRIDAL TOURS.

It would be an interesting thing to study the number of ills from which the present generation is suffering imposed upon them by custom, or descended to them from their ancestors. If it is the fashion, which means the custom, to lace tightly, women will lace, even though they know that they are doing themselves temporary, or even permanent injury. They repent when various uterine troubles make every-day duties a task, and themselves poor, exsanguinated invalids, with "shattered nerves." And by the by, "shattered nerves" covers as great a multitude of sins as charity, only in a different way. One would think that the average female, manacled by corsets, distorted by ill dressing, with overheated head from false hair, and cramped feet and powdered face, had imposed upon herself enough misery, without adding more to it. But it seems not. A young woman, brought up in the lap of luxury or otherwise, suffering from both her own sins, and the sins of her ancestors, physical sins gains the admiration of some man, who loves her devotedly, and would risk even his life to save her misery or pain, and marries him. At this time of life, when the sexual function has just burst fully into life, at this period, when a good constitution is needed to stand the excitement of love as well as passion, when the uterus and its appendages are congested. What does she do. She starts off with the young man of her choice, and jaunts about the country in jolting railway cars, or starts for a voyage across the ocean. She throws aside the very thing that she needs, at the very time she needs it most—*rest*, and leaves friends and home to meet strangers and strange things, and put up with the fatigue and excitement of traveling.

This is essentially wrong, and is only done because it is the custom for the happy couple to do it. We do not doubt that the foundation for many of these shattered nerves are thus laid, and in these few words put forth our demurrer to the pernicious practice, the only argument in favor of which is that it is the fashion to do it.

## LECTURES.

## CLINICAL LECTURE ON LOCOMOTOR ATAXIA AND INFANTILE PALSY.

Delivered at the University Hospital.

BY

H. C. WOOD, JR., M.D.,

Professor of Materia Medica and Therapeutics and Clinical Professor of Nervous Diseases in the Medical School of the University of Pennsylvania.

[REPORTED FOR THE HOSPITAL GAZETTE.]

## LOCOMOTOR ATAXIA.

Three years ago this man noticed that there was some thing wrong with him. There were twitching movements in his feet, and shooting pains in his shin bones with general aching throughout his whole body. These aches were generally worse at night.

The above symptoms may be due either to sciatica, or to disease of the spinal cord. Now we know that sciatica is very rarely bilateral whereas disease of the spinal cord is never unilateral. When therefore, as in this case, there is pain in both sides of the body, the trouble is clearly spinal in origin.

The pain and aching continued for eighteen months without any other symptoms, then he first noticed numbness in his toe and this gradually mounted into his limbs. Numbness of the limbs is very frequent in sciatica. Fifteen months ago his gait began to be affected. He complained of this particularly while walking in the street after night. Within the past twelve-months his legs have begun to waste. Six weeks since he was obliged to give up walking. A year ago he passed through a period of great sexual excitement. This period was of but short duration and was followed by a period of complete sexual exhaustion. This exhaustion has become permanent. At present his limbs are very much wasted. At times the man has had sharp, shooting pains in his head. Occasionally there have been pains in both his arms. The pains in his right arm have been so persistent and excruciating of late that he has been obliged to eat, etc., with his left hand. Now and then he suffers from severe attacks of giddiness, everything is in a whirl around him. On one occasion he fell, but he did not lose consciousness. His sense of taste is changed, but his speech has never been affected.

We can with entire certainty now dismiss the idea of sciatica and consider this as a well marked case of locomotor ataxia. He tells us that when walking at night he has to keep his eyes bent upon the curbstone so as to direct his course. He has, as you have just seen, all the symptoms of locomotor ataxia. Besides the locomotor ataxia there are probably other complications.

The symptoms of locomotor ataxia are sharp burning pains which it is well nigh impossible to allay. Sometimes these pains take the form of gastric crises. Gastric vomiting and symptoms of collapse supervene. Again these shooting pains may be limited to the sexual



organs, or to the rectum. If located in the rectum they may be increased by defecation.

There is pain also, usually, in the legs and ankles. By and by these pains become associated with numbness and anæsthesia of the parts. In other cases the anæsthesia may take particular forms. There may be loss of taste, of thermal sense. Very frequently the feeling of muscular sense is lost. Not only may the power of recognizing impulses be absent, but even when it is present the rapidity of conducting them is impaired. There is, for instance, quite an appreciable time between the instant at which the foot strikes the floor and the appreciation of the act by the brain. There is evidence of the existence of this condition to some slight extent in this patient.

Coming to the sphere of motility the loss of the power of coordination is the symptom, *par excellence*, of this disease. The guiding power of sensation also is perhaps lost. A patient may retain his powers of coordination unaffected and yet lose entirely his guiding power. In cerebellar disease the guiding, but not the coordinating power is present. By and by the time comes when the power of coordinated movement is lost.

In locomotor ataxia there is loss of muscular sense. Locomotor ataxia as a usual thing, fastens itself upon the lower part of the spinal cord. Among the occasional symptoms of this disease is color-blindness. This condition may be either congenital, or acquired. In the acquired variety, as seen in cases of locomotor ataxia, the color blindness comes on early and the patient very soon recognizes a difficulty in distinguishing between colors. There is no loss of the color sense in this man.

In many cases there is some disturbance of cerebration—vasomotor disturbance. The arteries of the brain under the control of the cervical sympathetic are affected.

The fact of the loss of power in this man's right arm shows that the upper part of the cord is also somewhat affected. The contraction of this patient's pupil is connected, no doubt, with irritation in the same region. The pupils of his eyes are very small, indeed. From the wasting of the muscles and the marked drop-wrist it is quite plain that the locomotor ataxia is not pure and uncomplicated. There is very decided loss of power. It is in fact, much more so than usual. He has lost all power of executing delicate movements with the right hand. The right arm is very much wasted. Connected with the muscular atrophy, there is quite marked fibrillary twitching.

The mental phenomena in this case are different from those usually present so late in the disease. In one case which came to my notice there was mild delirium. In some cases this disease [locomotor ataxia] ends in the general paralysis of the insane.

The application of electricity here convinces me that muscular contractility is entirely preserved. In pure muscular atrophy the atrophy in this case is complicated with the locomotor ataxia. There is a steady, gradual destruction of the fibrillæ of the muscles.

Theoretically locomotor ataxia is not a distinct disease. The chronic sclerosis may affect the anterior columns of the cord produc-

ing *tabes dorsalis*, or the posterior, causing locomotor ataxia. The sclerosis is generally limited to one region. In a great majority of the cases of acute muscular atrophy the pains of locomotor ataxia are met with.

The symptoms of disturbance of the genital organs show that the lumbar region of the cord is affected. (The sacro-lumbar region is affected in all cases of *satyriasis*.)

In this man there is sclerotic disease of the whole of the posterior part of the cord with here and there some involvement of the trophic centres.

**The man's memory is poor in small matters.**

This disease as illustrated in this present instance, bears a very intimate relation to the general paralysis of the insane. One patient in my care whose case resembles quite closely the present one, became garrulous, irritable and quarrelsome some four months ago. Two months ago his speech became indistinct and now he is gradually, but surely lapsing into the condition known as the "delirium of grandeur." It is needless to say that this poor fellow is in all probability far beyond all medical aid. I shall, however, put him upon a regular course of electricity, it may prolong his life for some little time. In case there may be some syphilitic element in the disease I will also order him iodide of potassium thrice daily in gradually increasing doses.

#### INFANTILE PALSY.

This child is just three years old. Thus far it has never walked. It can crawl along the ground and sit unassisted, but nothing more. It cannot get up without aid. Mentally it is quite a bright child; talks quite plainly.

Its mother died of diphtheria. Its father is still alive. Upon examination I find that the child has a good thigh, but a small, under-sized leg. It can move its limbs perfectly in all directions. There is but little muscular power in its calves. The muscles of its back are of perfectly normal size.

Its inability to walk is probably due to changes which have taken place in its spinal cord. The child is evidently of a somewhat rachitic diathesis. That condition is very possibly at the basis of all the trouble. I have seen many cases such as this before, though some symptoms, usually found, are wanting here.

I would say that the child's condition was due to a failure of development of the nervous centres consequent upon rickets.

The prognosis is much more favorable here than in well marked infantile paralysis.

The little thing must be put upon a course of cod-liver-oil, iron and iodide of potassium in minute doses. Its hygienic and dietetic condition must be carefully watched. Electricity must be applied to the affected muscles.

## CLINICAL LECTURE ON GLAUCOMA

Delivered at the University Hospital.

BY

WILLIAM F. NORRIS, M.D.,

Professor of Clinical Ophthalmology in the University of Pennsylvania Medical School.

(Reported for THE HOSPITAL GAZETTE.)

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My friend, Dr.—, has brought this old lady to our clinic from the interior of the State. She is wholly blind in one eye and partially so in the other. There is very well marked glaucoma of both eyes, the left eye is also affected with cataract. The curious green reflex from the pupil in a case of glaucoma led the ancients to call it the green disease. The old German writers spoke of glaucoma as green cataract, in contradistinction to the true, or grey cataract.

As I have already said, the right eye is totally blind, so we can do nothing for it. I think, however, that an operation performed upon the left eye would benefit slightly the sight of that eye, so that the patient could in future see enough to enable her to get about the house by herself. You may ask me why I operate at all in this case. My answer is, that glaucoma is one of those terrible diseases which, if let alone, always progress more or less rapidly to the final production of complete blindness.

I will first remove the lens and perform iridectomy on the left eye and then say a few words to you concerning the symptoms and pathological lesions of that state of the inner structures of the eye which is known by the name of glaucoma, or *green tumor*. The woman was here placed upon the bed, the lens extracted, and a segment of the iris removed. The discharges of blood, etc., were then carefully wiped away, and after placing pledgets of cotton over both the eyes, they were carefully bandaged up and the patient wheeled into the wards).

I have here on this board a section of the normal eye made from before backwards. It shows the cornea and iris and the various coats and humors all in their proper site. The optic nerve enters here from behind, and its fibres are distributed all over the inside of the globe of the eye. The normal nerve, as you can readily see, is either slightly elevated or lies perfectly flat on the level of the eye ground. When the bundle of nerve-fibres branches off just after entering the globe there is left there a funnel-shaped vacant space. In normal eyes this vacant space goes by the name of the *physiological excavation*. When examined through the ophthalmoscope, this vacant space looks like a sharp bend in the course of the optic nerve. When the eye is healthy this *excavation* does not extend all the way to the edge of the nerve, but a quantity of tissue is left in the intervening space. Where, however, the intra-ocular pressure is augmented and the nerve pressed back into its fibrous sheath, the physiological excavation assumes an unnatural and diseased condition. The canal of the optic nerve becomes more and more irregular in shape, and the blood vessels finally disappear entirely from view. A light line ap-



pears around the site of the nerve, which some of you might mistake for the normal boundary of the nerve, it is, however, nothing but a circle of atrophy. Such pressure, if long continued, acts like a regular ligature, the nerve fibres are gradually cut off, and slowly or rapidly undergo atrophy. The axis cylinder of the nerve is no longer able to transmit impressions of light. So long as any fibres remain which have not been pushed down, there will still be some power of vision left in the eye.

As concerns the method of estimating the increase of intra-ocular pressure, you ought all of you to be acquainted with it. Put the end of one finger against the ball of the eye, well back on one side, and then make pressure with another finger on the opposite side of the ball. In health, the ball of the eye is always more or less compressible, so much so that it can be quite perceptibly dented by the point of the finger. In glaucoma, owing to increase of intra-ocular pressure, the ball becomes more or less stony and hardened to pressure.

The stony feeling of the ball of the eye is one of the surest diagnostic signs of glaucoma. Another symptom of the disease is the gradual diminution of sight, with or without inflammation of the intra-ocular substances. Finally the dimness grows into total blindness. A peculiar symptom is the perception of colored rings around lights, though this *may* be produced by the mere existence of conjunctival catarrh, without glaucoma. The patient often complains of neuralgic pains in the forehead. The conjunctival veins become congested from inflammatory action, the cornea grows cloudy, the aqueous humor yellow, and the pupil dilated. The cloudiness of the cornea and the dilatation of the pupil will always prevent you from confounding this disease with iritis. Atropia is a positive injury in all cases of glaucoma, and greatly increases the inflammation and pain.

Glaucoma is frequently met with in old people, but is rare under thirty. The pressure gradually goes on, and so the periphery of the field of vision becomes smaller. This periphery is very peculiarly narrowed from the nasal side. The temporal side of the eye is that most affected. This is because the retinal fibres on the temporal side are thinner and less resistant. Most of the blood vessels, too, come from the nasal side. These blood vessels become starved and unable to feed the structures. These changes sometimes occur very rapidly. Some few cases demand instant treatment at your hands. Unless you operate at once by at once I mean as soon as you operate for strangulated hernia, the eye will be absolutely blind in forty-eight hours. The symptoms in these cases are the same as those which I have just portrayed, except that they are aggravated, the fever and pains coming on very rapidly, and running their course quickly.

I do not know why iridectomy does good in these cases, but it certainly does do good. If operated upon immediately the eye may get entirely well. In chronic cases, where there is but slight tension, the operation does but little good. In such chronic cases there is usually degeneration of the vessels of the choroid and intra-ocular hemorrhage. The lens, too, and aqueous humor are diseased, and cataract forms as in the present instance. Be sure to test carefully the extent

of the field of vision before you promise cure in any case. In this case the field of vision is still moderately good. Even after she recovers from the operation the atrophy of the optic and choroid will still prevent her from seeing clearly. There was a gush of blood, too, which I noticed, and which will complicate the case. This hæmorrhage may have been from the iris and ciliary body. The diminution of the intra-ocular pressure caused the capsule to give way. I do not propose to put any atropia in this eye. If there is pain I will use morphia. In cases of glaucoma, where iridectomy is not performed, I have derived some benefit from a solution of esserine—the active principle of calabar bean.

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## CLINICAL REMARKS ON A CASE OF ENLARGED SPLEEN.

Delivered at the University Hospital.

BY

WM. PEPPER, A.M., M.D.,

Professor of Clinical Medicine in the Medical School of the University of Pennsylvania.

Reported for THE HOSPITAL GAZETTE.

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Robert Irwin, aged twenty-six, carpenter by trade, single, resides in this city. Went some time ago with a party to colonize certain parts of Texas. After spending some short time in more salubrious portions of the State, he went to the vicinity of Eagle Lake, Colorado county, and began working on a farm in a low bottom near the Colorado river. In about a month after settling in the neighborhood, he was attacked with chills and fever. The chills at first came on every week; later every other day, and finally every day. After a stay of nine months near Eagle Lake, he returned to Philadelphia. He had a chill the day he reached here, and two chills on the week following. Since then he has had but one return of his troubles.

The colony of fifty-two persons from Philadelphia had already settled near Eagle Lake, when he arrived there. This patient does not seem to know much of the details of the sufferings of the members of that colony, but another man, who was there with the party, stated that of the fifty-two who went out only about seventeen returned. Four are still living at Eagle Lake, the rest of the party, viz.: thirty-one persons, are dead.

Two months ago this man's abdomen began to swell. His feet were swollen when he first came to this hospital. There is no albumen in his urine.

The first settlers in a region such as the above, invariably suffer from malaria; and these unfortunate fellows have been a very sad example of the rule.

To return to a consideration of our patient, I find upon close inspection that the enlargement of the belly is dependent upon an enormous enlargement of his spleen. This enlargement seems to be symmetrical. There is evidently no fluid in the abdomen. I cannot elicit any fluctuation upon palpation.

Physical examination of the abdomen reveals, upon percussion, resonance down to the fifth rib. There dullness begins. This dullness extends all the way down from the fifth rib to the ilium, and from the crest of the ilium on the left side all across the belly to a point half way to the median line. The fact of the position of this abdominal tumor, shows it to be due to the presence of an enlarged spleen.

The liver also is enlarged. Its dullness begins at the seventh rib and extends all the way across to the splenic dullness. Very careful physical examination tells me that there is no enlargement of the heart.

All the dependent parts of the belly are resonant upon percussion. One of the effects of chronic malaria is enlargement of the spleen and liver. The enlargement is due to chronic congestion of the organs. An organ which is repeatedly congested becomes hypertrophied. A chronic hypertrophy of the pulp and of the interstitial fibrous elements.

In the same way the intralobular bands of the liver become hypertrophied.

An examination of this man's blood under the microscope shows an enormous number of specks of hamato-globulin circulating in the blood. These little specks stick fast in the smaller capillaries, and so are deposited in every organ of the body. The tissue cells would be found crowded with this pigment.

The above-mentioned organs, the spleen and the liver, are very essential to nutrition. We find them here in a state of advanced disease.

Treatment must be directed towards the relief of the engorgement. In cases, such as these, where the blood poisoning is the prominent symptom, we depend largely upon quinia, arsenic and iron together, and in full doses, and for a long time. Conjoined with this treatment, we should insist upon careful hygiene and good food.

Where the engorgement is so great it is advisable to act directly upon the portal circulation. For this purpose I am accustomed to prescribe some laxative mineral waters, or an occasional mercurial purge. Under the above treatment, the nutrition and crisis of the blood will improve rapidly.

The hypodermic injection of ergotina into the subcutaneous tissues will diminish the size of the enlarged organs. Some have advised the injection of ergotina into the substance of the organs. Hammond has put Duchenne's harpoon into the tissues in cases under his charge, to determine the existence of pigment in them.

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## ORIGINAL ARTICLES.

### THE PHYSICIAN'S DUTY TOWARD SCIENCE.

BY

J. H. THOMPSON, M.D., OF GOSHEN, N. Y.

The prominence given, of late, to general science, through special lines of research, has incalculably stimulated the mind of the prac-



tioner of medicine to seek an augmentation of the status of his profession, and this not more in gratification of the sense of advancement than in the absolute necessity to meet the growing demands made upon his skill and acquirements. The ends to be attained in practice have always been in advance of the means of accomplishment; but, as those means are multiplied, it becomes the duty of the practitioner to avail himself of them, and, in so doing, he must entertain a due comprehension of all the features which are coincident with their development. These acquired means are the contributions from general science, enhanced in importance as they are proved to be approximates to absolute truth. To be able to judge of the reliability of each announcement, it is not less the duty of the recipient to make acknowledgement of the newly divulged claim, than to prove, through his own personal research, the acceptability of the hypothesis upon which such claim is founded. To institute this, a broad culture is demanded, which will also embrace an enthusiastic desire to increase the knowledge already acquired through coöperative and associative efforts, as well as by individual application.

In the development of physical science is made prominent the features which not only invite, but, as already stated, demand the due recognition which will comport with the avowed purpose of the earnest physician, namely, a determination to advance the highest claims of his profession.

The asserted forces of nature are the only recognized means with which his work is to be consummated; and to use them intelligently, no effort should be spared to become familiar with the laws by which they are environed, that the adaptation of such means to the desired end may be rightly and efficiently accomplished.

This asseveration embraces more than the casual thinker would be inclined at first to indorse; for it joins with nature in its very minutest details of functions—challenges the recognition of universal law, and encounters the subtleties that govern the newer facts that are daily opening to our observation and appealing to our acceptance.

In the constantly changing aspects of matter and force, we note the correlation and conservation of these laws, and unite in the conviction that, whether in the mineral, vegetable or animal kingdoms, there are conjoined features which are made apparent by the evident revolution of these changes about a centre of positive intelligence of purpose. This purpose is the progressive elevation of man toward a perfect being, not only physically, but in those higher attributes which characterize him as the culmination of the creative fiat, the full measure of all things.

This change sweeps through a circle of evolution to which there is no end—no beginning. Observe the evolution of the earth from the gases to the rocks and mountains, which have been proudly rearing their heads into the clouds, or lying in dark majesty beneath the seas for countless ages of the world. They are not inexorably fixed to remain till time shall be no more, but are ever changing and evolving new forms that survive the cataclysms of matter. Over them, and interstratified among them, we find the wrecks and records of other

worlds—once beautiful and populous—with their varied forms, which have had their component, and even incongruous parts, amalgamated into more harmonious, more beautiful and higher forms of life and modes of force. But these have long since passed away; and o'er the relics of former cycles, o'er the kneaded mass of man in his pride, of woman in her beauty, of arts in their splendor, of vice at her zenith, and virtue in her tomb, we are standing upon another epoch, teeming with life and action, and yielding forth its fruits in season and its forces for man's improvement.

This, verily, is a world of eternal change—of reproduction and decay—one endless cycle of the living, dying and reappearing, in varied transformations—a phoenix, yearly, daily and hourly springing from its ashes in renewed strength and beauty. The blade of grass which springs from the soil, flowers, casts its seed, and dies, to make room for offspring, nourished by the relics of its parents, is a type of the never ceaseless law controlling all nature.

Even dying man goes down to the grave and mingles with his primitive dust, and every atom of his corporeal being becomes subject to the inevitable law of change. The residue of his organism becomes food for vegetable growth. From the excretions and decay of the animal results inorganic substances—water, carbonic acid, ammonia, etc., which are reproduced in the forests, in the fruits of the field and the orchard, in the grapes of the vineyard, and in all the inorganic products of the soil. And now comes the intelligence and power of man, resulting from the acquisition and the labor of the past, to qualify, and shape, and mould, and impress, by an energizing spirit, the circumstances of their growth and increase; for upon such operations of the obedient forces of matter and of his own being, does his own development depend. Having the power to promote his own advancement by the aids of science, man's duty to improve becomes the law of his being and the motive of his activity. How wonderful the scheme of advancement! How exacting the demands of rational existence! How fearful the accountability! How overwhelming the weight of moral obligation! How essential that each of us should put forth his utmost endeavor to propitiate the coming of that time when our efforts shall be crowned with the full fruition and reward of success!

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## HOSPITAL RECORDS.

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### PRESBYTERIAN HOSPITAL, NEW YORK

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Reported by ALBERT LACROIX, M.D., House Surgeon.

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STRUCTURE URETHRAL.—CYSTITIS WITH HYPERTROPHY.—DIVISION.  
—INTERNAL URETHROTOMY.—CYSTOTOMY.—DEATH.—SERVICE  
OF DR. CHAS. K. BRIDGON.

John O. Mara.—Aet 36.—New York.—Single.—Steam Fitter.—  
April 13th, 1876.

Family history good. When twelve years of age he received an injury in the perineum that gave him some trouble, and caused retention for some time.

First troubled with the stricture when about eighteen years old. He had had gonorrhea at times before that. At first the stricture was spasmodic, causing retention of urine only after excesses in drinking or exposure to cold. For several years the retention has come on frequently, so that he could not drink liquors of any kind, and for the last three years the use of even coffee or milk had to be stopped. Gives a history of chronic cystitis extending over the period of eight years.

Three years ago he was operated upon for stricture of the urethra with a Holt's dilator.

After this attempt at divulsion, only a number five sound could be introduced, and in a short time the stricture was as bad as ever. For nearly a year previous to his admission he had sounds passed to produce dilatation.

*Present Condition.*—Patient's general health bad. He is very anæmic, and has no appetite. The urine comes in drops and with much straining. He passes a very small amount about every twenty minutes. The urine is ammoniacal, and almost jelly-like, with pus and mucus.

On percussion the bladder though distended is found to barely rise above the pubes. An inflamed organic stricture is found  $7\frac{3}{4}$  inches from the meatus, and other less marked strictures at different points along the urethra beyond this.

Three strictures were detected by a filiform elastic bougie, and even the passage of this gave him great pain.

Ordered hot bath and hot fomentations to abdomen with suppositoria opii et belladonnæ, and small doses of quiniæ sulphat.

No attempt made to pass instruments on account of the inflamed condition of the urethra.

*April 14th.*—His condition somewhat improved. Passes more urine and less frequently. It is strongly ammoniacal and contains pus and mucus in very large amount. Sp. gr. 1.018. Albumen abundant, no casts detected.

*April 17th.*—General condition about the same. Stricture slightly less marked; a No. 3 elastic catheter was introduced, and the bladder washed out. Amount of urine in 24 hours, 40 oz. Still jelly-like in consistence. Ordered infusion triticum repens and benzoic acid.

*April 18th.*—The patient had a severe chill the preceding night, followed by some rise of temperature; this morning the temperature was again normal. His appetite is very bad, and he has eaten but little since he has been in the hospital.

*April 20th.*—The patient vomits frequently. The bladder has been washed out daily. The urine contains some blood.

*April 21st.*—Operation by Dr. Chas. K. Briddon. The patient was put under ether and Maisonneuve's urethrotome introduced and carried through the stricture. A director was introduced into the bladder after passing a number 20 sound, and cut down upon through the perineum, and the knife carried on into the bladder. The finger



was then introduced, and the opening into the bladder enlarged in order to give the urine free vent.

*April 22d.*—The patient recovered badly from the ether and the shock of the operation. Three hours afterwards he lost some blood from the wound, and was nearly in a state of syncope. The hemorrhage was arrested by the application of ice to the perineum, and stimulants were freely injected. In spite of the stimulants and morphine, no pulse could be felt at the wrist or forehead. The patient remained in this state for 24 hours, during most of which time no pulse could be distinguished. Injections of peptone milk and brandy were used every two hours.

*April 23d.*—The patient relieved somewhat from his previous state under the use of hot air bath, dry cups and hot saucers applied over the kidneys. From the symptoms this moribund state was thought to be partially due to the uræmic poisoning, as there had been an almost complete suppression of urine since the operation. To-day he is better, and has taken a little food by the mouth. Ordered quinine sulph. and the most nourishing diet. The secretion of urine was completely established by the cupping and hot air bath.

*April 24th.*—The patient continued to improve very slowly until 3 P. M. During the forenoon a sound was passed into the bladder, and no bad symptoms followed. At 3 P. M. his brother attended him. He was inconsiderately allowed to get up and use the chamber vessel. He was taken with a severe fainting fit from which he only partially rallied under continued stimulating by brandy hypodermically administered.

*April 25th.*—Patient died this morning at 3 A. M.

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## PERISCOPE.

### COLLABORATORS.

*Diseases of the Urinary System:*  
HENRY G. PIFFARD, M.D.  
*Treatment of the Urinary System:*  
EDWARD C. SEGUIN, M.D.  
*Diseases of Women and Children:*  
FRANK P. FOSTER, M.D.  
*General Surgery:*  
EDWARD J. BIRMINGHAM, M.D.

*Genito-Urinary Disease and Syphilis:*  
ROBERT W. TAYLOR, M.D.  
*Male and Female Genitalia:*  
FREDERICK A. LYONS, M.D.  
*Ophthalmology and Otology:*  
SAMUEL B. ST. JOHN, M.D.  
*Orthopedic Surgery:*  
NEWTON M. SHAFER, M.D.

*Practical Medicine:*  
E. DARWIN HUDSON, JR., M.D.

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A CLINICAL EXAMINATION IN MR. BERKELEY HILL'S WARDS, IN THE UNIVERSITY COLLEGE HOSPITAL, ON SOUNDING FOR STONE IN THE BLADDER, AND THE SEARCH FOR MINUTE CONCRETIONS WITH THE MICROPHONE.

In this examination, a member of the class was invited to be the expositor of the case selected for demonstration, and, as the student proceeded, each division of the subject was recapitulated briefly by Mr. Hill. The important symptoms which justified sounding the bladder, were four in number: 1. Micturition; 2. Pain; 3. The condition of the urine; 4. Passage of blood.

*Micturition*, though not invariably altered, was usually changed.

The cause for voiding urine became more frequent; that was, by day as the patient went about, not by night or when he was still. During rapid, or jolting motion, this desire was tormenting; hence he could not ride or drive with comfort. Sudden stoppage of the stream was sometimes noticed. In short, a greater frequency during locomotion, and a lesser frequency by night suggested stone.

*Pain* was seldom entirely absent, but sometimes was not felt until the stone had gained considerable size, and often so slight that it was borne for years before relief was sought. On the other hand, as renal colic, it might be the forerunner of vesical calculus. The pain was felt usually at the end of the penis, either at the very tip or, more commonly, one inch behind that point.

Hence, in children, the prepuce was often long and sodden from pulling and pinching the part to ease the pain after passing urine. The pain was cutting or burning, coming on toward the end of micturition, and most severe at the moment the bladder was quite empty, though the desire to expel more remained for ten or fifteen minutes, until the collection again of a small quantity of urine let the stone fall away from the mouth of the bladder, and the patient was easy till urine was passed again. Pain was most sharp if the stream were suddenly stopped by the stone blocking the exit from the bladder. The end of the penis was the favorite locality for the pain, but it was sometimes felt in the perinæum, and, very rarely, even in distant parts of the body.

*Condition of the Urine.* The urine varies in calculous patients, but might be roughly divided into clear and muddy; clear urine being less common than the muddy. When the urine had been habitually clear, commonly the patient had observed red sand, or even small stones, to have escaped in the stream of urine. In such clear urine, streaks of blood were sometimes observed.

The turbid urine might be merely clouded by an excessive quantity of mucus, or rendered muddy by muco-pus, which settled and clung to the bottom of the receptacle. Such urine was fœtid.

*Blood* was not invariably passed, but commonly so; occasionally in very small quantity at the end of micturition, or, after jolting exercise, in large quantity, mingled with the urine. Streaks and small clots often formed part of the sticky deposit in calculous cystitis.

The existence of this presumptive evidence justified exploration of the bladder.

*Selection of Sounds.* Here a variety of sounds of good and bad shape were displayed, from which the student selected a well shaped one, and described its essential points. The material should be steel, and its length about thirteen inches. The stem was fourteen *millimètres* in circumference equal to a six-and-a-half or a seven English catheter, hollow, with an eye in the straight part away from the curved beak, which was employed to rub against the interior of the bladder. Two inches of the upper end were graduated in quarter-inches to aid in measuring the stone. The handle was cylindrical, two inches and a half long, by half an inch thick, and smooth,

not fluted, to give to the fingers contact with as much of its surface as possible. Beyond the handle the stem terminated in a nozzle to let off urine, or to inject water, when required. The curve was the most important part. Commonly, sounds retain too much of the curve suitable for catheters, and thus the long beak, in sweeping the floor of the bladder, depressed the part painfully, while it failed to search closely behind the prostate, just where a small stone was most often hidden. The length of the curve of the sound was one inch and two-sixteenths from the straight stem to the tip of the beak, and the length of the arc subtending this curve, one inch. The beak itself was solid, slightly bulbous, but a little flattened at the sides.

*Condition of the Patient.* If the attempt to pass a sound caused much pain, it was prudent to desist, and accustom the urethra to the presence of instruments by the daily passage of a flexible bougie, until the sound could be borne without suffering. This was not often needed; but, in all cases, sounding should not be performed on a patient fatigued by a long journey, or on one who could not keep quiet for the remainder of the day. With respect to the amount of water in the bladder, it was rarely necessary to require more than one or two hours' retention of urine. A distended bladder was often irritable, though an atonic bladder was more easily searched when tolerably filled, and for such cases, an elastic bottle to inject three or four ounces of cold water might be required. The proper position, was a horizontal one on a firm mattress, the shoulders not higher than the hips; but, on the contrary, if the prostate were enlarged, the hips should be raised by a firm cushion underneath. The surgeon then stood on the patient's right side, and introduced the sound in a manner that was explained during the passage of the instrument. The bladder being reached, its surface was explored systematically, but no indication of stone was elicited.

*The Microphone.* As the expectation in the case under examination, was to find phosphatic concretion from chronic cystitis, rather than true calculus, when the ordinary sound was withdrawn, a sound fitted by Mr. Coxeter, with a microphone inside the handle, was passed into the bladder, and connected with two telephones worn by the observer. The search for calculus was repeated, and, after a few moments, a scratching sound was heard at each stroke, when a particular part of the bladder was struck, though no sound audible to the unaided ear, or any sensation by the fingers of the surgeon was remarked. If the beak was moved away from one small part of the bladder, no sound was heard through the telephone beyond the humming vibration from the noises in the ward and neighboring streets. The harsh scratching sound, which resembled that caused by scraping a finger-nail over the tightly drawn paper of a jam-pot, was obtained only when the beak was rotated at one part of the bladder. When each bystander had heard the scraping noise through the telephone, the microphone sound was removed, and the bladder washed out by Clover's wash bottle. This brought away someropy pus, and two pasty masses of phosphatic gritty particles,



held together by tenacious mucus. Rubbing these masses on the soft muslin-strainer with the sound gave no audible noise, unless it was magnified by the microphone.

The experiment tended to attribute to the microphone a practical value in surgery beyond that of a merely scientific toy, at first alone granted to it. It indicates the presence of phosphatic masses before they were sufficiently hardened to give a rough grating or click, when touched by the ordinary sound, or to require the lithotrite for their comminution. The battery used was a one-celled Coxeter's battery, creating a weak continuous current, and the transmission of the altered sound-impulse through a pair of telephones to the ears of the listener, gave quality to the magnified noise, enabling the auditor to appreciate to some extent, the difference produced by striking bodies of different vibrating quality.

The mode of investigating stones by the sound, to gain information respecting their size, number and constitution, the conditions which decide the method to be adopted for the removal of stone, and the expedients which may be adopted in doubtful cases of stone, were elicited in turn from the students before the conclusion of the examination.—*The British Med. Jour.*

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## TREATMENT OF INTERTRIGO OF INFANTS.

BY

DR. ADOLF WERTHEIMBER.

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Intertrigo, which at the start and in its lower grades is a slight and insignificant disturbance, can in its further development and extension become a disease endangering the life of the child. As an evidence of the want of appreciation of its importance, and of correspondingly meagre directions to be found for its treatment, one need only consult the latest literature on the subject.

Intertrigo begins always as an erythema, a simple hyperæmia of the skin, caused by some chemical or mechanical irritant, such as an abnormal character of the fæces, decomposed urine, etc. (intertrigo of the nates and genitals, or by the continual contact and rubbing of two cutaneous surfaces opposed to each other neck, behind the ears, axillæ, folds of the thigh, etc.) In these last cases, also, the chemical element plays a more important part than the mechanical, since here it is not so much a question of rubbing as of the irritating effect of decomposed secretions, principally of a fatty character, the sebaceous glands being much more active in infant life than the sweat glands.

When the action of the above-mentioned irritants continues for a certain length of time, the simple erythema, which itself is accompanied neither by exudation nor exfoliation of the epidermis, under a gradual softening of the latter goes into the diffuse erythematous dermatitis, the affected portion of the skin becoming highly red, excoriated, and moistened with the exuding serum. It is only where the infant is in a cachectic state, or is placed under the most unfavorable external conditions, that it comes to the formation of a diphtheritic

membrane on the excoriated places, or to the transformation into gangrenous ulcers. One such instance only had the author seen,—an infant, prematurely born, four and one-half months old, with a hernia inguinalis of the right side, at which spot an intertrigo had been started from wearing a truss. One spot in the lumbar region, owing to continued pressure, developed into a gangrene. The slough, on coming away later, left behind a deep ulcer, which subsequently healed under proper local treatment, the infant being nourished by the breast of its healthy mother.

Of great importance, in a practical point of view, is the disposition of the disease in question to extend over large surfaces, and herein lies its significance and danger. It is not unfrequent to meet with cases where, starting in the folds of the neck, it is found to have extended upwards to the angle of the jaws and downwards as far as the middle of the sternum. When the intertrigo starts from the neighborhood of the anus it is prone to take on a wandering character, and can thus give rise to various local as well as general disturbances of a serious nature.

The widely accepted theory that the severe grades of intertrigo are confined almost exclusively to the poorer classes, and are due to the want of proper care, does not coincide with the author's experience, for he has often seen the disease in its worst forms in families where all the surroundings were favorable to health, and where the greatest care had been taken of the children with regard to cleanliness, though not always understandingly and in the right way. The skin of some children possesses an abnormal vulnerability, so that the slightest irritation can produce an erythema, which, once existing, rapidly extends. In a few cases the author has seen an intertrigo on the lower portion of the body followed by an erythema papulatum over the whole trunk, which after a few days would disappear. It is not rare to see erythema pustules spring up in the neighborhood of an erythematous eruption, terminating in superficial ulcers. In one case, an infant five months old, with acquired syphilis, an intertrigo on the inner surfaces of both thighs was the principal and nearly the exclusive seat of plaques muqueuses.

The treatment has for its duty to remove the exciting cause, and to heal as quickly as possible the cutaneous eruption.

With regard to the first indication, when the intertrigo is situated in the neighborhood of the anus, attention must be directed primarily to the character of the stools, which must be restored to their normal condition when found deranged and irritating.

When the child is brought up in part or exclusively with artificial food, the procuring of good fresh cow's milk, with attention to its proper dilution and to the "emulsionizing" of the caseine, is often sufficient of itself to improve the faulty digestion and assimilation; and for this purpose the author has found best adapted to infants in the first two months of life one part milk and three parts barley water. Between two and five months of age the proportion is increased to one part milk to two of barley water, and later to equal

parts of the two. When the stools are thin and of acid smell he employs daily two or three times the following powder :—

℞ Calcis precipitat. gr. iss.  
Bismuth. subnitrat. gr. i.  
Sacchari albi gr. iij. M.

In other cases, where the discharges have a less serous character, and are characterized rather by abundant yellowish-white flakes of caseine, minute doses of muriatic acid produce better results. The fact, however, still remains that many cases will be found rebellious to every treatment, and recovery will be effected only by the employment of a wet-nurse. Great care must be taken to remove wet diapers, and to insure the under-clothing's being always dry. It is better in washing the folds of the skin—the favorite seat of intertrigo—to use lukewarm soap and water, as this removes more easily than cold water the accumulated fatty secretions.

Powders should be used locally only when the epidermis is sound : otherwise they are injurious by adhering to the secretions and forming crusts, which act as foreign bodies and increase irritation. The sporules of the lycopodium, owing to their oily nature, are preferable to the different amylaceous powders. Still better is an admixture of semen lycopodii with finely powdered subnitrate of bismuth or oxide of zinc.

Whenever the intertrigo is so advanced as to present moist excoriations, a different treatment should be immediately adopted. The author strongly disapproves of the use of the so-called "drying salves" prepared with animal fats, such as zinc and lead ointments, and attributes the severity of many cases that have come under his care to the injurious effects of their long and lavish use. A decided preference is expressed for the unguentum diachyli of Hebra, and its employment in fresh cases is generally satisfactory. In other cases it fails, and the author has of late employed, in severe forms of the disease, a remedy that has completely fulfilled every expectation, namely, corrosive sublimate.

His method of using this latter remedy is very simple. The solution employed is :—

℞ Hydrarg. chlor. corrosiv. 0.05  
Aquæ destillatæ 100 M.

(About one grain to four ounces of water.)

Pieces of lint are soaked in this solution and laid upon the diseased surface. It often suffices to apply the solution in this manner three or four times a day for an hour at a time, and it is rare that the application must be continuous. According to the author the action of this remedy is "an astoundingly favorable and rapid one." Within a few days, not rarely in from twenty-four to thirty-six hours, the dark redness and exudation disappear, and the affected skin becomes painless and dry, regeneration of the epidermis taking place in a very short time. The author has never observed any injurious effects from the absorption of the mercury, although he has often applied the solution over large surfaces. If the possibility of such absorption is borne in mind, the danger in these cases will always be small, owing



to the short time that treatment is ever required, the rapidly re-forming epidermis impeding the absorption. When recovery is well under way the author is accustomed for a short time to employ the unguentum diachyli to prevent relapses. All doubts as to the existence of congenital syphilis must be excluded.

When the intertrigo becomes diphtheritic or gangrenous an antiseptic treatment must naturally be resorted to.—*Boston Med. Jour.*

#### RETENTION OF URINE IN THE FEMALE.

Dr. J. H. Croom, of Edinburgh, groups the causes leading to retention of urine in the female in the following order: 1. Injuries or contusions during labor acting directly or by subsequent inflammation. 2. Pressure of displacements or tumours acting mechanically on urethra or neck of bladder. 3. Injuries or growths acting reflexly. 4.) Diseases of the nervous system. (5.) Direct obstruction within the tube of the urethra as from stricture or foreign bodies, such as a calculus. He considers the following points to be worthy of note: 1. In all cases of retention of urine a vaginal examination is necessary. 2. A gum elastic male catheter, of medium size, without the stillette, is the best form to employ. 3. In retention from displacement it is important to remember the altered position of the urethra. In retroversion of the gravid uterus, the vagina is drawn upwards and forwards, the meatus is drawn upwards, and the direction of the upper part of the canal is backwards and downwards. (4.) When any difficulty exists in accounting for the retention, a visual examination should be insisted upon. (5.) It is a safe rule, before giving a definite verdict on any pelvi-abdominal tumor, to empty the bladder.—*Ed. Med. Jour.*, May, 1878.

#### NEWS ITEMS AND NOTES.

**Park Shelters and Street Seats.**—The National Health Society is taking steps to obtain park shelters for public parks, and have communicated with the Commissioner of Works on the subject, submitting, at the same time, a plan of a park shelter of a picturesque form, such as is to be introduced as a forest shelter at Epping Forest. The same society is also endeavoring to induce some of the London vestries to erect seats for weary pedestrians in suitable thoroughfares and public places in the London streets.—*Brit. Med. Jour.*

**The Soda Treatment of Burns.**—When we drew attention, some time since, to the remarkable efficiency attributed by some practitioners to the use of saturated solution of carbonate of soda in immediately relieving the acute pain of burns and scalds, and alleviating their results, some of our correspondents subsequently expressed their disappointment at the results. This appears to have been due to the employment of relatively weak solutions of soda. The following is reported in the *Students' Journal* of June 8, by Mr. W. Minors, of the

Staffordshire General Infirmary : J. S., aged 42, a furnaceman, was brought, suffering from a burn involving the whole of the left arm, from the middle of the humerus downwards. He complained of intense pain, and blisters had risen. A saturated solution of the carbonate of soda (half a pound of soda to three pints of water) was at once applied on lint, and kept wet by constant application of the solution. The relief was immediate. The dressing was removed after three days. No slough had occurred. The arm is now quite well. In dressing and using the solution, the only things necessary are to see that the whole of the burnt surface is covered with the saturated lint, that it is kept constantly wet, and the first dressing is not removed for at least three days.—*British Med. Jour.*

**Professor Virchow** has decided on leaving active political life, and has addressed the following words to his late constituents : "There are people who say I do not wish to go back to the Reichstag, out of pure dislike to the empire. Certainly, I am one of those who combatted the present imperial laws at their creation, as being inadequate and injurious. But now that they exist, I resign myself to the hard reality, and stand as firmly as any one by the Emperor and the empire. I cannot accept a seat in the Reichstag, simply because it would be incompatible with my scientific labors to do so, and would inevitably lead to my abandoning them altogether. Perhaps you may think me a good-enough politician, but, for myself, I think I am a better savant. I am convinced that in this, my real province, I can be more useful than in the Reichstag."—*Rep.*

**One Hundred and Four Dead Doctors, and nearly Five Hundred Sick.**—A late number of the *Russian Medical Gazette* gives the following telegram from San Stefano : "Fifty physicians and fifty-four assistant-surgeons have died in the service of the army of the Danube, thirty-one physicians are on leave, and one hundred and fourteen physicians and three hundred and sixty assistant-surgeons are ill."—*Canada Medical Record.*

**Statistics of Physicians.**—Dr. Draper, of Boston, gives the following statistics : Of 677 deaths of members of the Massachusetts Medical Society, during the last twenty-five years, the earliest occurred at the age of 21, and the latest at 95 ; the average age of deaths having been 58.84 years. The greatest number died at the age of 72, and the next largest number at 69. Among 1,260 deaths of physicians recorded in the registration reports for Massachusetts for the past thirty-four years, the average age at death was 53.27.—*Rep.*

**Extraordinary Precocity.**—Dr. Horatio Yates, of Binghamton, Canada, reports the following in the *London Lancet* : "The child, a female, is two years and three months old. I was consulted by the mother, who supposed it had some mammary disease, there being a symmetrical enlargement of both glands. Struck by their appearance, I had the child stripped, and found what appeared to be a fully developed woman ! Abundance of hair on the pubes and in the axillæ. The genital organs, as well as the mammae above mentioned, seemed to be fully developed. For the last three months the child had menstruated

regularly three days every four weeks. She was flushed, and complained of head-ache and pain in the back and thighs while menstruating. She weighed forty-eight pounds. *Canada Med. Record.*

**No Stimulants.**—The other day a physician, to a patient enquiring: "What ought I to take, or to do when my feelings of exhaustion come on?" replied, "Go and lie down like any other beast."—*The Doctor.*

**Quid Speculum Possit.**—One of our most skilful practitioners ("Lyon Medical") had occasion recently to employ the vaginal speculum in the examination of a lady. The examination finished, he was about to withdraw the instrument, when he felt a slight touch on the shoulder. "Excuse me, Doctor," said the patient, "I have long suffered from a pain in the stomach. While you are there can you not tell me what is the matter?"—*American Med. Bi-Weekly.*

**What a Spider Eats Per Diem.**—In order to test what a spider can do in the way of eating, we arose about daybreak in the morning to supply his fine web with a fly. At first, however, the spider did not come from its retreat, so we peeped among the leaves, and there discovered that an earwig had been caught, and was now being feasted on. The spider left the earwig, rolled up the fly, and at once returned to his "first course." This was at half past 5 A. M. in September. At 7 A. M. the earwig had been demolished, and the spider, after resting a while, and probably enjoying a nap, came down for the fly, which he had finished at 9 A. M. A little after 9 we supplied him with a daddy-long-legs, which he ate by noon. At 1 o'clock a blow-fly was greedily seized, and then immediately, with an appetite apparently no worse for his previous indulgence, he commenced on the blow-fly. During the day and toward evening a great many small green flies, or what are popularly termed midges, had been caught in the web; of these we counted one hundred and twenty, all dead and fast prisoners in the spider's net. Soon after dark, provided with a lantern, we went to examine whether the spider was suffering from indigestion, or in any other way, from his previous meals; instead, however, of being thus affected, he was employed in rolling up together the various little green midges, when he took them to his retreat and tea. This process he repeated, carrying up the lots in little detachments, until the web was eaten, for the web and its contents were bundled up together. A slight rest of about an hour was followed by the most industrious web-making process, and before daybreak another web was ready to be used in the same way. Taking the relative size of the spider, and of the creatures it ate, and applying this to man, it would be somewhat as follows: At daybreak, a small alligator was eaten; at 7 A. M., a lamb; at 9 A. M., a young camelopard; at 10 o'clock, a sheep; and during the night 120 larks. This, we believe, would be a very fair allowance for a man during twenty-four hours, and could we find one gifted with such an appetite and digestion, we can readily comprehend how he might spin five miles of web without killing himself, provided he possessed the necessary machinery.—*Scientific American Sup.*



# THE HOSPITAL GAZETTE

AND

## ARCHIVES OF CLINICAL SURGERY.

A WEEKLY JOURNAL OF MEDICINE, SURGERY AND THE COLLATERAL SCIENCES.

EDITED BY

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### LECTURES.

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#### LECTURES ON INSANITY.

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Delivered at the College of Physicians and Surgeons, New York.

BY

E. C. SEGUIN, M.D.

Clinical Professor of Diseases of the Mind and Nervous System.

(Reported For THE HOSPITAL GAZETTE.)

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#### LECTURE III.

MANIA—DIFFERENTIATION FROM MELANCHOLIA—SYMPTOMS—VARIETIES OF MANIA—TRANSITORY MANIA—ACUTE MANIA—ACUTE DELIRIOUS MANIA—CHRONIC SYSTEMATIZED MANIA—CHRONIC INSANITY—DEMENTIA.

GENTLEMEN:—I shall consider to-day the subject of mania.

By mania we understand a condition of the mind that is the direct opposite of that seen in melancholia. It is characterized by an exaltation and over-activity of the *ego*.

In melancholia there is introspection, in mania an outward projection of the thoughts upon the external world.

In illustration of melancholia you will recollect that I made a homely comparison by telling you to look into your own conscious-

ness and remember your feelings when suffering from a "fit of the blues." That is a fair resemblance, but it would represent only an exceedingly mild form of melancholia. So in mania we may institute an analogous comparison. If you recall your experience of a state of excessive good health and spirits, with a feeling of joy and a consciousness of extraordinary power, you will have a minute representation of the maniacal condition, but of course it must be very much exaggerated to constitute mania.

Besides this general psychical characteristic there are minor ones that flow from it. In the first place, as a part of the over-activity, there are two things, over-ideation, and over-activity of the physical system, the muscles being called violently into play. The patient talks volubly and quickly, his ideas flow out in such a rapid stream that they become confused. The result is an incoherence in thought and expression. The patient will show a tendency to incessant change of the subject of conversation, and he is physically restless. There is likewise a verbal incoherence. After every few words he starts with a fresh idea, and his talk becomes so mixed up that it appears to be a mere jumble of words. This over-ideation may find expression in other ways than those just described, by singing, shouting, mimicking, etc.

The physical over-activity may show itself in a more or less pronounced tendency to destroy articles within reach. We have necessarily violent and destructive movements, but this is only one of the phases of the condition, and varies very much in degree in different subjects or in the same subject at different times.

Then, moreover, we have, as in bad cases of melancholia, the three symptoms, hallucinations, illusions and delusions. Differing from patient with the latter malady, maniacal patients move about instead of being quiet, because of the over-activity of the cerebrum. There is a much greater tendency in mania to have these symptoms. Hallucinations may often be as well marked in melancholia, but illusions and delusions are more pronounced in mania.

Insomnia is a more marked symptom in this disease than in any other, in some cases the patient not being able to obtain any sleep for days, until death relieves him of his sufferings.

Contrary to what is the rule in melancholia, there is activity in the bodily symptoms. There is a rise in the pulse, and an increase in the temperature to about  $100^{\circ}$  or  $101^{\circ}$ . It is, however, quite a difficult matter to take the temperature of these patients. The face is often flushed.

The digestion of food is impaired, patients are often voracious, yet there is no apparent dyspepsia. Possibly all the food is digested and assimilated, but there is no gain, because the excess taken is probably balanced by waste caused by the excitement. Erection of the hair is an occasional symptom.

The differential characters of the two conditions are as follows:

*Mania.*

*Ego* exalted and over-active.

Joy and excitement generally prevail, sometimes comic emotions characterize attacks.

Over-ideation and over-action. Resulting therefrom incoherence and delirium and violent acts, general restlessness.

Insomnia.

*Melancholia.*

*Ego* is depressed and does not react normally on external world.

Sadness and fear, religious feelings strongly developed.

Reduced ideation { few motions  
and even absolute  
silence.

Reduced action. { Immobility,  
relative or  
total and even  
cataleptoid  
state.

Insomnia (less marked.)

*Physical Symptoms.*

Increased circulation.

“ calorification.

“ (?) assimilation.

“ voracity.

Lessened circulation.

“ calorification.

“ assimilation.

As regards the varieties of mania, we have two according to the classification I gave you in the first lecture, but we shall now make a different arrangement.

1. *Acute transitory mania.*
2. *Common acute mania.*
3. *Acute delirious mania.*
4. *Monomania, so-called.*
5. *Chronic systematized mania.*

By *transitory mania* is meant a short attack of delirium or fury lasting a few minutes or a few hours, rarely twenty-four. I, myself, have observed one such case. When I was with the army in New Mexico, there was a colored soldier among the troops, who, after being cured of a slight illness, remained in the hospital as a nurse. He was an honest, good-natured man. One day I came into the ward and found him struggling violently with those around him. He had already injured several persons, had broken various articles of furniture, and finally had become perfectly uncontrollable. He was quite unconscious of his surroundings. He was overpowered, given some bromide of potassium, and in a short time became well. When he had recovered he had no recollection of having done anything wrong. He had not been drinking, but had been out in the hot sun, and the case was probably one of acute cerebral hyperæmia, produced by the heat.

Such cases are not so very rare, and are most commonly seen in epileptics, hence the name epileptic transitory mania. Take a patient suffering from epilepsy, who is using bromide of potassium, and has not had an attack for some time; such a patient may suddenly, with-



out any preceding loss of consciousness, have a paroxysm of transitory mania.

Trousseau relates a very interesting case of this kind. A respectable young man was arrested in the streets of Paris for assaulting and striking the passers by, and then violently resisting the police—a very grave offence in France. When he came to himself he declared that he knew nothing at all about the matter. He would have been sentenced but for his physician who showed that he was an epileptic, and that the maniacal outburst had been preceded by a fall to the ground.

A question of this kind may often come up in a medico-legal way. A patient may kill another man and yet claim to know nothing at all about it. Is he guilty of murder? We must approach all such cases with a great deal of doubt and caution. If we cannot clearly make out a history of epilepsy prior to the act, it would require an inconceivable amount of evidence to clear the individual of responsibility for his action. If the epileptic person had a grudge against his victim, it might complicate the case immensely. You see how delicate a question it is. We cannot go so far as to say that an epileptic may not kill an individual against whom he has feelings of revenge, without being aware of what he is doing, and therefore being equally responsible with a healthy person.

The treatment of these paroxysms is hardly medicinal. You must control the patient, but as gently as you can.

By *Acute Mania* we understand a condition developing rather slowly from a preceding condition of bodily or mental disease. A patient does not spring out at once into a state of violence, as in the preceding instance. There has been a certain moral alteration in the individual which it is difficult to define. This alteration in the patient's ideas and habits develops for weeks or months before it is noticed perhaps. His friends cannot tell when it began, but they have noticed peculiarities about him. He has shown more irritability than he was wont to, his usual and natural affections in the family circle have been perverted, and he has become whimsical and easily provoked. He has not carried on his business as well as before, forgetting matters that should be attended to, and finally becoming eccentric, so that after a while even strangers begin to notice that he acts oddly, and if the patient be under pretty close observation many other abnormalities are seen. If he be married his wife notices that he sleeps badly, and perhaps gets up during the night and walks the floor. He expresses agony of mind, or has delusions. He fails in bodily health, and the transition from this state to active mania is difficult to trace. Gradually the eccentricity becomes positive insanity. He is dead to persuasion, his dislike becomes hatred. In business transactions he is morose and impolite, or positively insulting to his patrons. These traits may soon develop to a high pitch and assume the form of violence. The insomnia greatly increases.

An attack once developed, the condition is as follows: The individual is very much excited, and objects to seeing a physician. He talks volubly, but will not answer questions; he is perhaps very abu-

sive, is singing or eating voraciously, and shows a loss of moral sense. There is a want of appreciation on the part of the patient of his own condition; he does not admit that he is ill; he wants to go out, and restraint upon his wishes leads to the first manifestations of physical violence. This is sometimes quite severe, rendering the patient dangerous to those around him.

The physical symptoms have already been described.

There are often other symptoms present at this stage. A variety of animal acts may be done in an impulsive manner. Often the sexual excitability is much increased. A strong passion for drink may become developed in a very short time, though often it is also increased in the prodromatous stage.

The insomnia is total or almost so, at this time, and the greater the insomnia, the worse is the prognosis. The temperature is slightly increased, and the pulse rapid, full and strong, so much so that the old treatment was depletion, antiphlogistics, etc.

The state which I have thus roughly described, with numerous variations, will last for many weeks, and the usual duration is from three to six months. An unfavorable case will terminate sooner, by exhaustion.

In this condition delusions are innumerable. Some have ideas of persecution by enemies, and some fear that attempts are made to poison them, and in consequence refuse to take any food. This is a threatening symptom and needs a special treatment, to be referred to hereafter.

*Acute delirious mania* is rather more rapid in its course than the variety just described, though it is not suddenly developed like transitory mania, and the symptoms that lead up to it can easily be determined. The attack takes place in a few days after premonitory symptoms, such as those above described.

The paroxysm is more intense than common acute mania and the patient is totally uncontrollable. There is inconceivable volubility and incoherence, the patient declaims, sings, curses, prays, etc. The feces and urine are passed unconsciously, and the patient does not care how filthy he becomes. He may masturbate openly, eat his own feces, drink his urine; he always gesticulates wildly, struggles violently, assaults everybody and everything, and continues in this way, until death or sleep relieve him of his sufferings. He is a most frightful object to behold; the facies is horrible, the tongue and mouth become covered with sordes, the pulse is exceedingly rapid, temperature of the body rises several degrees.

Insomnia is absolute, and it is often impossible to make the patient to take food, except by force. The duration is short in cases of such extreme gravity. More than one-half of the patients affected in this way, die. The duration of life is according to the previous condition of health and strength. Usually it is from three days to a week, stronger patients will last a little longer. There is constant increased destructive metamorphosis without any assimilation, and the strongest constitution must succumb, if rest is not procured.



Sometimes death is very rapid, we find the patient doing well, we leave him, and in an hour we come back and find him dead.

The recovery is more gradual than the development, and in proportion as the latter has been rapid or slow, the former will be quick or tedious. If patients in this condition can be made to sleep, and are fed, they may get well soon, but the prognosis should always include the space of weeks or months.

I pass next to the form called *monomania*. By this term is meant a condition of mind in which the patient has one false idea; that he is the Prince of Wales, or a great inventor, while in other respects his mental condition is sound. I think that there are good reasons why we should reject this strict conception of monomania. It is true that the patient has one prominent delusion, but by careful observation you can always make out other morbid conditions, such as errors of judgment, weak memory, etc. Cerebral disease, as revealed by mental disorder, is never particularized but general. Volition, perception, emotion, intellection, etc., are functions of one mass of nervous tissue, and no absolute sub-division between the psychical functions can be made. Still we may retain the term *monomania* to designate the large class of cases in which delirium is not general.

The patient is very seldom violent. The forming stage is much the same as in the other varieties, but he has one or more chief delusions. I say he is not usually violent, but if you contradict him in his peculiar ideas, he may speedily become so.

I recollect one case that illustrates this point, that of a patient confined in the Middletown, Ct., Asylum. The individual was a physician, and he fancied that he was the Prince of Wales. If you called him Doctor, he would strike at you, and become quite aggressive; but if you addressed him as his Royal Highness, he would bow and return the salute with dignity.

All the violence of these patients is caused by contradicting them in their ideas, or restraining them in acts consequent on these delusions, and it is very easy to avoid trouble with them by the exercise of a little tact.

This form or disease is ordinarily chronic, and is allied to, or comprised in the next to be described.

*Chronic Systematized Mania*.—By this we mean the uncured remains of a common mania. It occurs in patients who have survived from an attack of acute mania, but who still retain a few of their old delusions. The false ideas have been crystallized, as it were, in their minds, and remain with them. As a part of the disease we have almost necessarily a certain amount of dementia. The patient gradually loses his mind, forgetting more and more, month by month.

The term chronic mania is used in still another sense. After saving life in a case of acute mania, there may be no systematization, but the mind remains in its maniacal state. The patient will rattle on in his talk all the time, a constant panorama of hallucinations and delusions occupying his mind, and in consequence he will act in obedience to his peculiar ideas. A great majority of the patients in asylums suffer from this variety of insanity, or about half from this, and



half from chronic melancholia, leaving out the cases of general paralysis. Most of them have monomania, and are tranquil and harmless, others have systematized, and simple chronic incoherent mania.

All of these subjects are liable to exacerbations which may last a number of days or weeks, and then leave them quiet again.

In cases of monomania and systematized mania, there may be exalted notions, which are commonly supposed to be pathognomonic of general paralysis of the insane, but this supposition is unfounded. A patient with mania alone may have an occasional exalted notion, he may decorate himself fancifully, or imagine himself to be some high personage. The exalted notions of general paralysis of the insane are numerous and varied; in mania they are few and fixed, sometimes solitary. A patient with general paralysis may imagine himself to be Michael the Archangel, Jesus Christ, and have an immense mine of wonderful diamonds all at once, but in chronic mania the delusion always remains more or less the same, or if it does change the alteration is not a rapid one. It has been proposed to call mania with limited exalted notions by the term megalomania.

I will now pass to the conditions of mental weakness.

*Chronic Insanity.*—Dementia, or loss of mental power, follows almost any form of insanity. It might be more logical to postpone the discussion of this subject until after we had disposed of general paralysis of the insane, but as sometimes it is prominent in that disease, we may discuss it in this place.

*True dementia* succeeds any form of insanity and likewise follows upon a gross cerebral lesion. It is the terminal stage of most forms of insanity. In the preceding lecture I have given much space to the differential diagnosis between true and seeming dementia.

A patient with melancholia, if he be not cured, in the course of months or years, will pass into a condition of dementia. So it is with the various forms of mania if they be not cured in a greater or less time. Dementia may likewise occur with all forms of cerebral softening, whether from embolism, thrombosis, etc., and may follow hæmorrhage. After malarial poisoning it sometimes occurs, and is then due to the blocking up of some cerebral capillaries by precipitated blood-pigment.

The fundamental symptom of this condition is a diminution and loss of mental power.

Great stress is laid upon the loss of memory that occurs, as a sign of mental decay, and undoubtedly it is a good symptom. Moral perversion also is marked. These are accompanied by impairment of judgment, and as the condition deepens the individual ceases to be a man with civilized habits, and becomes brutal in his actions. He does not perform his beastly actions, however, with the gratification of a maniacal patient, but in dementia he does it from instinctive impulses.

The appearance of the countenance is stupid, the lines of the face are lost, and in the final stages, it presents almost the same aspect that is produced by double facial paralysis, except that the eyes can be

closed. The eye loses its brilliancy and the cornea assumes a leaden appearance in the last stages.

There may be an accumulation of fat, and the patient whose mania or melancholia is prolonged and who gets fat, is the subject of a bad prognosis.

The memory becomes more and more obscure, the patient forgetting the most recent events while he remembers facts of long ago. There comes a period when he remembers nothing at all. Give him his breakfast and he immediately forgets that he has eaten it. At last the mental faculties become completely extinct, all remembrance is a blank. He receives and digests his food and passes his excrements without attention.

The duration of this condition is limited according to the amount of care taken of the patient. In ordinary asylums the person may last for two or three years, but in private families, where more care is taken of the patient, he may last many more years until some inter-current disease carries him off.

## HOSPITAL RECORDS.

### ROOSEVELT HOSPITAL, NEW YORK.

Reported by C. T. BAFFUM, M.D., House Surgeon.

#### ABSCCESS OF TIBIA, OPENED BY TREPHINE.—SERVICE OF DR. R. F. WEIR.

John Dargan—married—æť, 28—Ireland—porter—Oct. 2, '76.

When patient was eight years old, his right leg became tender and swollen. He remembers no cause for this. After a few months some dead bone came away. In about 18 months he was well enough to be up and about as usual, but there always remained a cicatrix about six inches below the knee, on the crest of the tibia, where the integument is firmly attached to the bone and cannot be moved as can the adjacent skin. Patient had the clap some years ago and a sore on the glans penis, but gives no symptoms of having had syphilis. About six years ago he first noticed a slight pain in the leg; was confined to no particular spot, sometimes in or just below the knee and sometimes in the leg, extending at times to the ankle. The pain was, at first, of a dull gnawing character, but lately has become more intense. Although under various treatments, antisyphilitic amongst the rest, he has been growing worse steadily.

*On admission.*—Find patient apparently a healthy man, but complaining of the above severe symptoms. Given potass. iodid. gr. 40, t., i., d. and sol. morph. sulph. sufficient to keep him free from pain.

*Oct. 7th.*—Pain in leg not relieved, but general health improved. Says he feels much better.

2 *P. M.*—Patient being under ether, operation for abscess of tibia was performed by Dr. Weir. Esmarch's bandage being applied, an in-

cision was made over crest of tibia, commencing about two inches below the lower border of the patella and extending downwards about five inches. The periosteum was found very much thickened, the bone under it roughened, and at a point about four inches below lower border of patella there was a slight prominence. At this point the trephine was applied and a button of bone removed. Beneath this the bony tissue was quite soft and was easily removed with a bone-gouge, when a cavity was reached in which a fluid containing pus corpuscles was found. In cleaning this cavity another and larger one was found nearer the head of the bone. The bone covering this was removed by chisel and mallet as far as the upper border of the cavity. The cavity was lined with a velvety pyogenic-like membrane. The surface of bone around each cavity was thoroughly scraped until healthy bone was reached. The cavity thus made was  $2\frac{1}{2}$  inches in length, from 1 to  $1\frac{1}{4}$  in depth, and  $\frac{1}{2}$  in in width. The cavity was stuffed with picked lint soaked in carbolic acid, and the wound covered with picked lint and a bandage.

6 *P. M.*—Patient recovered from ether. P. 100, T.  $98\frac{1}{2}$ .

*Oct. 8th, 9 A. M.*—P. 86. T. 99. Patient says he feels better than he did before the operation. Has pain, but not of same character as before.

6 *P. M.*—P. 88. T. 99.

*Oct. 9th.*—P. 84. T.  $99\frac{1}{2}$ . Feels better than yesterday. Leg does not give him much pain. P. M. P. 98. T. 100.

*Oct. 14th.*—Still has some pain in leg, but it is not nearly so bad as formerly. Pulse and temp. normal.

*Oct. 18th.*—Dressing changed to balsam and sheet lint.

*Oct. 20th.*—Great improvement. Granulations springing up. Discharge healthy.

*Oct. 28th.*—Still improving. Is up and about ward. Cavity filling up rapidly. Discharged, to be treated as an out-door patient.

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NEURALGIA OF TONGUE.—SECTION OF NERVE.—SERVICE OF DR. H. B. SANDS.

B. Diehl.—Married.—Aet. 51.—Germany.—Laborer.—Nov. 14th, 1875.

Five months ago patient was operated upon by Dr. Sands for epithelioma of tongue. He did well up to three months ago, when he began to experience neuralgic pains in right side of tongue, and in right side of lower jaw. This pain has become more severe, and has extended to right side of head. Is most severe at night.

*Nov. 15th.*—Gustatory nerve divided by Dr. Sands. Patient not under ether. The mouth being held open by a gag, an incision was made down to the bone, with sharp pointed curved bistoury, from just in front of ant. pillar of fauces, forward to neck of last molar tooth. The guide for the incision was a line drawn from the angle of the jaw to cervix of last molar tooth. The nerve was divided. Very little hæmorrhage.

*Nov. 16th.*—Patient experiences some relief, but still has pain.



*Nov. 18th.*—Pain in the jaw still continues, but is not nearly so severe as before operation.

*Nov. 19th.*—Discharged improved.

DEPRESSED FRACTURE OF SKULL.—ABSCESS OF BRAIN.—DEATH.—SERVICE OF DR. ERSKINE MASON.

Constantine Boliano.—Single.—Aet. 28.—Italy.—Laborer.—Aug. 7, '77.

Four weeks before admission the patient was struck on the head with the butt end of a pistol, which blow was not immediately followed by any bad symptoms. Three days before admission 18 days after blow a tumor appeared over the seat of the injury. There was intense pain in the head, and the patient soon sank into a stupid condition, in which he was brought to the hospital.

*On Admission.*—Patient in a stupid condition, muttering frequently and occasionally replying to questions. There is paralysis of right side of face and tongue, with dilatation of right pupil. Left pupil somewhat contracted. Neither respond readily to light. Conjunctiva injected. Extremities not paralyzed. Over the right eye, about  $1\frac{1}{2}$  inches above the outer angle of the frontal bone, is a puffy tumor, about the size of a walnut, which pulsates, is sensitive, and gives a sense of fluctuation. In the centre of this tumor is felt a circular, clean-cut depression of the bone. There is marked pulsation of the carotids in the neck. Patient passes his urine and faeces in bed.

*Treatment.*—Ice-bags applied to head, and patient given iced milk to drink. Urine drawn off.

*Aug. 8th.*—Seen by Dr. Mason, and trephining determined upon. Ether deemed unnecessary.

A crucial incision was made with scalpel through the skin over the site of the tumor. The skin and muscular tissues being dissected up, the dura mater was found protruding through the opening in the bone. The depressed bone had evidently been forced into the brain. The dura mater was laid open, when some pus and brain matter appeared. No bone was found. A small, spurting vessel was secured by ligature.

Wet dressings were applied lightly to the wound, and patient given a dose of salts.

6 P. M.—Pulse 80. Temp. 99 1-5. Still in about the same condition.

*Aug. 9th.*—P. 84, T. 99. Is more rational. Pupils seems to respond somewhat to light.

6 P. M.—Pulse 72, (weaker) T. 98 4-5. Is again sinking into a comatose state, from which it is difficult to arouse him.

*Aug. 10th.*—Died at 7 A. M.

AUTOPSY.

On removal of calvaria, a nearly circular opening in frontal bone marked the site of fracture. It was about  $\frac{1}{2}$  inch in diameter, the

inner table being broken to about the same extent as the outer. The skull was less than half the normal thickness, and in some places a mere shell. The dura mater was firmly adherent to the brain, and its membrane at site of fracture. Half a dozen small pieces of bone were found imbedded in the tissues here. Occupying nearly the whole of the right frontal lobe of the brain was a large abscess; enclosed in a thick membrane. There was much softening of brain substance about the fracture and abscess. There was also considerable meningitis at base. The ventricles were full of purulent fluid.

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NECROSIS OF SUPERIOR MAXILLA.—OPENING OF ANTRUM AND REMOVAL OF DEAD BONE.—RECOVERY.—SERVICE OF DR.  
M. MARKOE.

Theodore Crone.—Single.—Aet. 42.—New Jersey.—Brakeman.—Oct. 22, 1877.

Six months ago the left upper jaw became swollen, a bad tooth was drawn which was followed by swelling of the face and supposed erysipelas on that side. An abscess broke inside the mouth at this time. Two weeks later another abscess broke under the eye on the cheek of the left side. This has discharged and remained open since. The discharge has been very offensive. From time to time this side of the face would swell up and break into mouth and on cheek. There has been a purulent discharge from nose for three months. No dead bone ever came away. States that 12 years ago, during the war, was struck on left cheek with the butt of a musket. Gives no history of syphilis. Family and personal history good.

*On Admission.*—Patient is a well built, healthy looking man. On left cheek, one-half inch below lower edge of orbit, is an open sinus. This carries the probe downward into the antrum, and directly backward for at least  $2\frac{1}{2}$  inches. In this direction dead bone is touched, as also the floor of the orbit. Another sinus just in front of the angle of the lower jaw passes upwards  $3\frac{1}{2}$  inches towards antrum and upper sinus. No dead bone is felt here. Matter passes into left side of nose, and air can be forced through the nose and out through the sinus below the eye. The skin about the left superior maxilla is red, inflamed, and sensitive to pressure against the bone. The lower eyelid is drawn down and everted. The mouth can only be opened about  $\frac{1}{8}$ th inch, and several old sinuses can be felt back along the upper gum. There are no enlarged glands in the neck. Urine negative.

*Treatment.*—Discharge allowed free exit.

*Nov. 1st.*—Discharge diminishing, and parts about upper sinus looking more quiet.

*Nov. 7th.*—Only the upper sinus remains open. The discharge from the nose still continues.

*Dec. 6th.*—Decided improvement. Discharge less. Bare bone still felt. Gen'l condition much improved. Given following:

R.

Ext. colocynth co.,  
Ext. nucis vomicae.,  
Pulv. ipecac,

3 j  
grs. v  
grs. xx

M.

F't. pulv. no. xx.

S. one A. M. and P. M.

*Dec. 24th, 2½ P. M.*—Patient etherized. Operation of opening antrum performed by Dr. H. B. Sands. The upper lip on left side being well drawn up, the mucus membrane was separated by scalpel from the alveolar process of that side and dissected up for about  $\frac{1}{4}$  in., and the bone cleared with the raspator. The anterior wall of the antrum was then perforated by pushing a trocar, carefully into it. The probe introduced into the cavity detected bare bone towards its upper and posterior wall. The opening was then enlarged by the bone-gouge so as to admit the little finger. A strong pair of dressing forceps were then introduced and a piece of dead bone  $\frac{3}{4}$  in. in diameter, and of considerable thickness, removed from upper wall of antrum, and evidently near the edge of the orbit. The antrum was thoroughly washed out with tepid water, the fluid passing into the nose and pharynx. Hæmorrhage slight.

*Dec. 25th.*—But slight inflammatory reaction. Cavity of antrum washed out.

*Dec. 28th.*—Some swelling of left side of face. Discharge free and not very offensive. Antrum washed out.

*Dec. 30th.*—Inflammatory action mostly subsided. Is up and about. Discharge slight and has but little odor.

*Jan. 2d, '78.*—Sinus under eye, closed. Less eversion of left lower lid. Complains of no pains or sensitiveness about cheek. Lower jaw is forced open slightly farther than at time of admission.

*Jan. 7th.*—Discharge less by nearly a half. Odor less. Operative incision nearly closed.

*Jan. 11th.*—Discharge again issued from external opening below eye.

*Jan. 20th.*—Incision in anterior wall of antrum completely healed. Sinus beneath eye still open, but discharged very slight.

*Feb. 3d.*—Sinus still open, but no bare bone to be felt anywhere

*Feb. 5th.*—Discharged cured.

#### RECURRENT NASO PHARYNGEAL TUMOR.—SERVICE OF DR. H. B. SANDS.

Win. Alley.—Single.—Æt. 17.—Ireland.—Clerk.—January 15th, 1877.

Patient was operated upon by Dr. Sands, for Naso Pharyngeal Tumor, in May, 1876. He made a good recovery, but soon after leaving the hospital noticed that the tumor was recurring. It has gradually increased in size. It gives him no pain. He complains of the hemorrhage from the tumor, which is quite frequent, more than anything else.



*On Admission.*—Patient is well nourished and in good general health. He presents a naso pharyngeal tumor, occupying the seat of former growth, and it extends forwards about  $2\frac{1}{2}$  inches, filling the space made by the removal of the superior maxilla; it descends to a level with the roof of the mouth, and seems to fill the greater part of the right nasal cavity. The tumor is soft and not tender to the touch.

*Jan. 17.*—Patient had quite a severe hæmorrhage during the night, which was controlled by pressure and ice.

*2.30 P. M.*—Patient etherized. The mouth being held open by Whitehead's mouthgag, it was discovered that hæmorrhage was occurring from the tumor. Endeavor was made to control it with pressure by sponge, and after a few moments, the hæmorrhage not ceasing, it was decided to tear away the tumor with the finger, if possible. The finger of the operator was therefore introduced, and after a moment's manipulation the tumor had almost entirely collapsed, proving it be almost wholly vascular. A small portion that was left was then removed with scissors and long forceps. The whole base of the tumor was then scarred with the actual cautery. There was considerable hæmorrhage during the operation.

*6 P. M.*—Patient recovered from Ether. P. 98, t. 101.

*Jan. 18.*—Passed a very comfortable night. No hæmorrhage. Feels quite bright.

*Jan. 19.*—Still in bed. Has very little pain. Temp.  $98\frac{3}{4}$ .

*Jan. 20.*—Pulse and temp. normal. Sat up.

*Jan. 23.*—Discharged improved.

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## PERISCOPE.

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TRANSACTIONS OF THE SEVENTH CONGRESS OF THE SOCIETY OF GERMAN SURGEONS. TRANSLATED AND ABSTRACTED BY C. SHOENE-MANN, M.D., OF NEW YORK.

The society was called to order in the aula of the university at  $12\frac{1}{2}$  p. m., by the President, Prof. von Langenbeck. After some introductory remarks he regretted the death of the three eminent Surgeons, Prof. Paul, (Breslau), Prof. von Heine, (Prague), and Prof. Linhart, (Würzburg). On motion of Prof. Esmarch, Prof. von Langenbeck was re-elected President. Vice-presidents—Profs. Thiersch, Lücke, König.

The first paper was read by

PROF. KÖNIG, (GÖTTINGEN), ON THE METHOD OF THE ANTISEPTIC TREATMENT IN ALREADY PURULENT OR SEPTIC WOUNDS.

If Lister's method, first intended only for pure wounds, should have a permanent value it was necessary to apply it also in inflamed and already septic cases and this has proved itself a brilliant success after König's experiments. In purulent inflammation of tendons, the necrosis of the tendon is prevented by a free incision, made

as soon as possible, one good washing with a 5 % solution of carbolic acid, drainage and a permanent dropping irrigation of a weak solution of salicylic acid the limb being in a suspended position.

Also in recent cases of empyema an incision as low descendent as possible and eventually resection of a piece of rib, one good washing with a 5 % sol. of carb. acid., drainage and antisept. bandage. The treatment of septic wounds especially when they complicate fractures, by an efficacious disinfection, removal of the destroyed and dead parts and a frequent changing of the dressing was illustrated by a case of compound comminuted fracture of the upper extremity with gangrenous emphysema where the amputation and Lister's method saved life. Such brilliant results can only be attained by an abundant use of carbol. acid, which might be followed some times by symptoms of intoxication, but never by death.

K. even desists from the use of the protective silk or Makintosh and puts only the different layers of antiseptic gauze on the wound in order to have the secretion sucked up quicker, and so hasten the disinfection.

Upon discussion, Prof. Bardeleben said he had used carbolic acid most frequently, but never saw an intoxication from it prove fatal; he, therefore, never uses thymol, which spreads a sweetish odor and attracts flies en masse and cannot be compared in any way with a 5 % sol. of carb. acid. Besides carbol acid only the chloride of zinc deserves to be mentioned as a creditable disinfectant.

Hueter also recommends abundant irrigations of strong sol. of carbol. acid because by producing a superficial coagulation of albumen they do not become so easily absorbed as weak solutions. In Herniotomy he washes the inflamed intestines with strong carb. acid sol. until they are of a whitish appearance. Since following this rule he has never noticed even the slightest peritonitis.

Kuster and Ohlshausen reject thymol as a substitute for carbol. acid.

Schede recommends thymol only for small wounds, and he finds that it is less irritant than carb. acid. He uses it and salicylic acid only when symptoms of intoxication from carb. acid appear. He recommends in children, as well as in adults, resection of one or more ribs, (of course antiseptically), because the cavity of the empyema becomes sooner contracted.

Bidder recommends thymol only for washing the cavity in empyema and abscess.

Wagner has seen 3 cases of empyema heal within 8 weeks after a free incision, thorough washing with strong carbolic acid sol., drainage tube which was removed on the 8th day and antiseptic dressings.

Von Langenbeck recommends thymol in children, although the wounds do not always take an aseptic course.

KOCHER (BERN) ON THE ÆTIOLOGIE AND THERAPIE OF ACUTE INFLAMMATIONS. (ACUTE STRUMITIS AND OSTEOMYELITIS.)

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After experiments and observations on 52 cases of acute osteomyelitis and 26 cases of acute strumitis, he found that the cause of these profound inflammations just as well as of those, only superficial, are minute organic elements. Between the simple and acute infections so pernicious, osteomyelitis is only a gradual; no essential difference. By trauma or a chemical irritation of the spinal cord he produced only a simple cicatrized osteosclerosis never an osteomyelitis. But after injection of a putrefied solution, as for instance a solution of albumen in which having shut off the air small pieces of pancreas have been kept for eight days; he produced a purulent inflammation of the spinal cord.

K. succeeded also by other means, which are in closer relation to the natural pathological process. He drilled a hole through the vertebral column and fed the animal with septic matter. The animal having become sick, was killed after three weeks and a purulent infiltration was found distinctly in the bone.

K. makes the deduction, that in a similar way in men from the digestive tract under the predisposition of a trauma or a cold, an infection of the irritated bone might take place. K. mentions two cases of acute strumitis similar to this process, following an acute gastritis, another one he saw following typhoid fever, another one acute articular rheumatism, two after injections of tr. Iodi. In six cases he found formation of gas in the abscess. For the treatment of this purulent strumitis he rejects incision and recommends puncture with Pravaz Syringe, injection of carb. acid (5% sol.) and Lister's dressing. All cases he has treated in this way ran a very favorable course. In a similar way he treated an osteomyelitis of the clavicle in a man 25 years old, caused eight days after a trauma, and complicated with a pneumonia on the right side, otitis of one rib, synovitis of the acromio clavic. articul. and an abscess above the trochanter.

The synovitis resisted the longest to puncture and injection of carb. ac. Recovery complete. The pus evacuated by puncture looked like a pulp of micrococci.

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KÜSTER (BERLIN) ON THE POISONOUS PROPERTIES OF CARB. ACID IN SURGICAL APPLICATIONS.

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K. observed during the three years' application of the antiseptic dressing, five cases of intoxication by carb. acid, four of them proving fatal. After inquiring in the resp. literature he found another case of death in seven intoxications of a slight degree, and five cases of death out of thirteen serious ones.

His first case occurred in a girl 23 years of age, who had a stricture of the rectum, where the latter has been injected different times with a 2% sol. of carb. acid. These injections caused a collapse



twice, the second attack being so severe that the patient rallied after one hour of artificial respiration; she died afterwards of pyæmia, and at the autopsy a large abscess was found around the rectum, which perhaps favored the retention and absorption of the injected fluid.

In the second case of a child, K. saw, after injecting the cavity of an empyæma with  $2\frac{1}{2}\%$  sol. of carb. acid, collapse; death setting in three hours later.

3d case, female 39 years, pelvic peritonitis, pus having made its way into the bladder. Incision and washing made with carb. acid, collapse, sinking of temp. to  $95^{\circ}$ . Sudden death the next day, after a 2d irrigation with a  $5\%$  sol. of carb. acid.

4th case, boy  $4\frac{1}{2}$  years old, resectio coxæ. Sudden death next day *unexpected*.

5th case, female 33 years, erysipelas, following a wound of the lower extremity, large abscess below the right gluteus magnus and suppurative inflammation of the knee; died four hours after puncture and washing with carb. acid. K. supposing that all these sudden deaths resulted from the poisonous effect of carb. acid, convinced himself in an experimental way. Others already established the fact, that small doses of carb. acid suffice to kill animals with cold blood, and that it requires larger doses to kill warm-blooded animals; according to French authorities, 10-20 grm., according to Husemann  $0.5\%$  of the weight of their bodies. After his experiments, K. found that the smallest dose of a  $5\%$  sol. of carb. acid to kill a dog at once is 0.036%, the largest 0.076% of the resp. weight of the animal's body. After administering 7.5 grm. of a  $5\%$  sol. of carb. acid, the animal had tremors, after  $10^{\text{th}}$ , convulsions, after  $15^{\text{th}}$  unconscious and it took  $1\frac{1}{2}$ —1 hour before the animal rallied. After having given still larger doses, K. had the same results as Salkowski, first reflex irritation, then paralysis.

Like in the animals with cold blood, no tremor is produced in men, but we see the well known dark, olive colored urine, a still unexplained phenomena, later on gastric disturbance, vertigo, vomiting, dilated pupils, very often mydriasis dysphagia, rise of temp. after small doses, sinking after large ones, until death occurs.

K. adopts Volkmann's theory that the so called aseptic fever is partly the effect of carb. acid. He also affirms the existence of a carbolmarasmus as the cause of death. Likewise in diseased animals, small doses about the 4th part of carb. acid bring a fatal poisoning; so in anæmic or exhausted from hæmorrhage, for instance, patients, the poison is, perhaps in consequence of an easier resorption, much more extensive; especially in septic fevers, also in children, which often come under treatment in an already cachectic state. There is a local and an individual predisposition for the absorption of the poison. As sequelæ may be mentioned pneumonia and œdema pulmonum. As an antidote the sulphate of soda is recommended, but after the experiments of K. it has an effect only in slight intoxications. K. injected carb. acid, soon afterwards sulphate of soda, and did not check the poisonous effects of the first. The same results were obtained when a solution of carb. acid and sulphate of soda

together has been injected. After all these results K. recommends the utmost care in using carb. acid. In critical cases he substitutes chloride of zinc, which even in stronger solution (8 %) does not interfere with first intention. Particularly he advises the greatest precaution in washing the abdominal cavity, and recommends in children the use of only  $1\frac{1}{2}$  % sol. of carb. acid. Upon discussion, Prof. Lucke said, that slight intoxications of carb. acid were frequent, he never had a fatal case. The peculiar color of the urine cannot always be authoritative, because it makes its appearance often after long exposure to the air. More safe is the reaction for sulphates with baric chloride. If the white precipitate of baric sulphate becomes less, or if wanting, surely phenolic sulphate has formed. After his practice the carbolspray alone causes slight intoxications. He observed especially in children nephritis after the use of carbol. acid; he also mentions a case of nephritis in a man, who made the different preparations of carbol. acid; it soon disappeared after the patient gave up this business.

Bardeleben, König and Hueter have never observed a dangerous case of carbolismus. Bardeleben recommends a mixture of carbol. acid and sulphate of zinc, and with a 5 % sol. impregnated bandages.

Hueter on the other hand uses only the stronger solutions of carb. acid, because they produce a quicker coagulation (vide first paper).

Oilshausen Halle observed in one case after a confinement, where the collum uteri was ruptured after the first washing, unconsciousness, mydriasis, and slight convulsions, lasting about 3 hours, when death occurred. At the autopsy a small amount of carb. acid solution was found in the peritoneal cavity. Remarkable are his observations after ovariectomy where the carbolspray has always been applied in great abundance and with good results. I would never substitute thymol. During and after the operation the patients do very well, but after the first dressing is changed, generally on the 5th or 6th day after the operation, the effects of the carbolspray show themselves in the peculiar colored urine. The author accounts for it in this way. Lister's dressings act like a poultice, and the relaxed skin under it has a greater resorbing power.

O. had one case where after a confinement an abscess of the pelvis was found. He injected after opening, a 2 % sol. of carb. acid and applied in hourly intervals bolsters of cotton, saturated with the same solution. After the elapse of 12 hours the patient passed the characteristic urine collapse set in, which was repeated the following day after another 5 % sol. had been injected; causing the patient's death.

Hahn treated a case, where a bullet fractured the upper third of the right urea, with moist carbolic dressings. Patient had nephritis, which soon disappeared after the administration of the antiseptic was stopped.

Von Langenbeck recommends the utmost care in the application of carb. acid, especially as there is, without any doubt, an idiosyncrasy in certain individuals. He had two fatal cases of intoxication from carb. acid in his polyclinic.

TILLMANN (LEIPZIG) ON EXPERIMENTAL AND ANATOMICAL RE-  
SEARCHES IN ERYSIPELAS.

T. endeavored to explain the following 3 questions, through 42 experiments, which he made on dogs and rabbits:

1st. Is erysipelas transferable from man to animal, from the sick to the healthy?

2nd. What effect has carbolic acid on the infectious matter?

3rd. Can we produce erysipelas in the healthy animal, and how?

All the preliminary work concerning this question proved nothing to him. As material for infection T. used the fresh as well as the dried contents of an erysipelas vesicle, also pus of consecutive abscesses. He inoculated matter or made cutaneous and subcutaneous injections with it. Small quantities of the infectious matter brought in contact with fresh or granulating wounds had no effect at all; large doses injected with a small, thin syringe produced erysipelas only in 2 cases after 24 hours. The animals recovered; only the place where the injections have been made became very slightly gangrenous.

By transfusing the blood of these animals an erysipelas of 2 days' standing was produced in one case. The dried contents of the vesicle gave only once a result, but very doubtful, and the administered pus produced abscesses of course, but never anything similar to erysipelas. The infectious fluid when mixed with carb. acid had no effect at all. No fluid, even the most putrid one, was able to produce erysipelas; generally it killed the animal, but without a nominal alteration of the primarily infected spot. T. did not always find bacteria in erysipelatous skin and he therefore thinks they are not the cause, but only a symptom of the disease.

T. advocates the theory of erysipelas of mucous membranes.

Hueter recommends the use of 3 % sol. of carb. acid in erysipelas; his approved method consisting in the use of injecting it subcutaneously with the Pravay syringe s. t. twelve times at one sitting especially in the beginning of the affection.

Wolff stated the observations he made on himself.

Having his fingers slightly injured he had erysipelas 9 times, always beginning at the upper arm, always severe attacks, but soon disappearing and doing well under the application of tr. benz. comp.

Strahler observed a transportation of the erysipelatous poison by vaccine, the latter being taken from children when their vaccination was followed by erysipelas. 25 children became sick, four of them died.

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NEWS ITEMS AND NOTES.

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**Somnambulism Unique.**—A young man of this city, addicted to sleep walking, recently tried a new role. He "drem't" that he was taking an injection; about midnight awoke and found that he had introduced something into his rectum. He came immediately to my office and had a nickel-plated pencil case four inches in length ex-



tracted. The case had an opening longitudinally about half its length into which the mucus membrane penetrated, thus making quite an obstacle to removal. No subsequent trouble, however.—*Isaac Smith, Jr., M.A., M.D., Fall River, Mass., August 2d, 1878.*

**Opium Narcosis from Winslow's Soothing Syrup.**—A physician of this city was recently called to see an infant whom he found suffering from opium narcosis, produced by "Winslow's Soothing Syrup." So profound was the lethargy that it took some time to rouse the child, both belladonna and electricity being used. This simple fact bears its moral on its face.

**Salicylic Acid as an Anaphrodisiac.**—A curious fact that may have direct and important bearing on the therapeutics of the sexual organs was brought to light by Dr. C. T. Jewett not long ago, and has since been verified in the case of a veterinary surgeon of Twenty-second street, this city. The doctor found that a patient who had been under his treatment for rheumatism for some time, began to complain that he was no longer able to obtain an erection of the penis. He had been upon 15 grain doses of salicylate of soda five times a day for some time. The doctor discontinued the salicylate and put the patient up damiana, when his sexual power began gradually to return.

The veterinary surgeon put himself upon pretty large doses of salicylic acid for rheumatism, and after a time was surprised at his inability to erect the penis. Although he at once stopped the use of the medicine he was some three months in regaining his sexual power. More extended observations upon this subject are needed.

## THE METRIC SYSTEM.

### A VERSION FOR THE KINDERGARTEN.

#### BY A METRICAL MANIAC.

#### I.

Hurrah for the Meter; the jolly new Meter;  
Not the long—nor the short—nor the common old teter.  
But partic'lar for you and for me;  
'Tis the 10-millionth part from the pole to th' equator,  
With it you can measure a township or 'tater,  
A kingdom, a brig, or a flea.

#### II.

D'ye see this 'ere cube of the tenth of a meter?  
That's a liter, to guage how much drink, by St. Peter,  
You can stow in your vast lower hold;  
But the Gram is the boy to hit up the doctors,  
And bother the fogies, and gargle concoctors,  
And make them to blunder and scold.

#### III.

O! Let them go hang with their ounces and scruples,  
Tell the greybeards to "cave" and come down to be pupils.  
Like Ned, Henry, Tom and your Jack;

There's nothing so easy as to learn this nice table,  
With Deka and Hecto and Kilo you're able  
To bounce it all off in a crack.

#### IV.

The Greek words increase, like Greek brats on the Shannon,  
But the latin decrease, as shot from a cannon  
Looks smaller, the farther it goes:

Haste! Dekagram, Hectogram, Kilogram, heavy,  
With Decigram, Centigram, Milligram's levy,  
And GILD the bald scalps of your foes.

#### V.

Play you're making-out bills when you're writing prescriptions,  
And your cramp hieroglyphics of th' ancient Egyptians  
Are improved into dollars and cents;  
Now what is a gram, or what are the values  
Of the devilish and blackguardly weights that we all use  
Annoying the Metrical gents?

#### VI.

A grain's one six-hundredth of our new Gram, boys;  
A Gram and a third will make, sure I am boys,  
Your old Scruple so base and so mean;  
Four Grams make a drachm, or at least very nearly,  
Thirty-two will fill up the ounce quite as clearly,  
Was anything 'cuter e'er seen?

#### VII.

Then weigh eighty Grams of the best old Jamaica  
With a hundred and twenty of water and shake a—  
Bout one Gram of nutmeg in clean;  
Squeeze in fifteen grams next of lemon-juice pure,  
Shake with ice, and you compound a mixture that's sure  
A babe from it's mother to wean.

#### VIII

And we'll drink to the system, the new Metric System.  
Who won't take it kindly, be sure we'll assist him  
By sarcasm, by nudge and by gibe,  
If some unlucky foggy with this new appliance  
Shall a babe or two poison, you know—it is science.  
Continue to weigh and prescribe

#### IX.

Drink again to our system—our superior system;  
For each who will use it, we'll rally and twist him  
A garland of chamomile flowers;  
And when every nation has learned this notation  
Crime shall vanish and all through creation  
A first-class millennium be ours.

# THE HOSPITAL GAZETTE

AND

## ARCHIVES OF CLINICAL SURGERY.

A WEEKLY JOURNAL OF MEDICINE, SURGERY AND THE COLLATERAL SCIENCES.

EDITED BY

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[The editors hold themselves in no way responsible for the views expressed by contributors.]

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### LECTURES.

#### LECTURES ON INSANITY.

Delivered at the College of Physicians and Surgeons, New York.

BY

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(Reported For THE HOSPITAL GAZETTE.)

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#### LECTURE IV

CHRONIC MANIA—CIRCULAR INSANITY—GENERAL PARALYSIS OF THE  
INSANE—PARALYTIC DEMENTIA—GENERAL PARALYSIS OR PARESIS.

GENTLEMEN:—Before passing on to the subject of to-days lecture, I would add a few words relative to certain forms of chronic mania. Some patients have in a chronic manner repeated quasi-periodical outbursts of mania lasting a few weeks. In the intervals they are sane to superficial examination, but in nearly all cases critical study reveals delusions or dementia. Again, other patients exhibit quite regular alternations of melancholia, mania, sanity, melancholia, mania, sanity, etc. This is circular insanity, or *folie à double forme* of French authors—an incurable affection. Here also, the so-called lucid intervals are not sane periods, strictly speaking; symptoms may be detected by an expert.

The subject of to-day's lecture is a very important one. It is the disease that has been miscalled general paralysis of the insane. It is manifested by mental symptoms among others, and hence must be included in the study of insanity. There is, however, a combination of physical and psychical symptoms more marked than in any other form of insanity.

We cannot make an artificial distinction. A great many sub-divisions of this disease have been proposed, but I shall follow the one shown in the chart, to wit.:

1st. Paralytic dementia.

2d. General paralysis or paresis.



These two varieties, during the whole course of their existence, have almost the same symptoms, but the combination of the physical and the psychical symptoms is different. In the first there is a predominance of physical symptoms, in the other a very striking abnormal psychical condition also superadded.

We will pass now to the consideration of the first form, paralytic dementia, in which the physical symptoms predominate.

The chief of these consists in a tremor, which is a false ataxia, appearing at first in the lips and tongue, and usually preceding any mental symptoms that are appreciable to the patient's friends. The tremor next extends to the cheeks and then reaches the hands. The physician is rarely called in before this stage is reached.

The tremor consists in a fibrillary trembling, and is not like that in chorea where whole muscles and groups of muscles are put in action. I have said that the trembling begins in the muscles about the mouth, and as an expression of this involuntary muscular action, we have produced a peculiar kind of speech which is almost pathognomonic of the disease.

Then we have an impaired action of the hands. Prominent among the symptoms of this is a peculiar jerky, angular handwriting.

The pupils are small and often unequal. There is also a seeming general paralysis; and lastly, later on in the disease, epileptiform and apoplecticiform seizures.

The peculiarity of speech, as I have already remarked, due to the fibrillary contraction of the muscles, is shown in the tremulousness of articulation. There is a vibration up and down of the waves of air as they issue from the mouth, and speech is broken up as it were. At first the patient fails to articulate distinctly difficult words, and lastly the easy words are pronounced in the same tremulous, quavering manner. The peculiarity consists in the dropping of a syllable. To take an example, a patient in relating to me his experience of a trip to Rome remarked, that he did not believe in the *infallibly* of the Pope meaning infallibility. He would say *constion* for constitution and so on, leaving out usually one of the middle syllables. This peculiarity is entirely apart from any aphasia or debility of the mind. These are very early symptoms and may appear when no others can yet be discovered.

The impairment of the use of the hands is shown in a vulgar way, in the patient finding difficulty in buttoning his pantaloons after urinating, being unable to tie his cravat properly, and so on. By the proper tests we find that these irregularities are not due to ataxia. Direct the patient to close his eyes and put his forefinger on his nose and you will find that he does it very well.

I once compared, in the Middletown Asylum, a patient having paralysis agitans with another having general paralysis of the insane. There was a good deal of trembling in both, and while the first could not begin to hold two pencils together end to end, the latter did so very well, yet he was almost unable to button his clothes or arrange his dress.

The hand-writing in the early stage is tremulous and shaky. A pa-

tient who when healthy could make a fair looking letter, now makes it in a very uncertain and angular way.

As regards the lower limbs there is not much change at first apparent. There is no stamping walk or jerking of the limbs or staggering, but a peculiar gait like that of dementia or idiocy. The patient walks stupidly and carelessly. His friends will say that he walks badly, trips occasionally, and so on. If you yourself ask him to walk, he may stand up straight and march off like a soldier. The explanation of this is, that when he is undergoing an examination he is on the *qui vive* and takes particular pains to show that there is nothing the matter.

A gentleman, from St. Louis, who was brought to see me walked perfectly well in my office, but when he was at home, I was informed, he walked very badly. After he left my office and was walking down the street, not thinking he was under scrutiny, I observed the peculiarity of his gait. It was a part of his desire to show that he was perfectly well. This correction of the gait and speech will sometimes take place in this form of disease, but in exacerbations of the 2nd form that I shall describe presently, the patient becomes quite unable to conceal symptoms.

The pupils in the early stage are positively small, quite as small as, or smaller, than in locomotor ataxia; sometimes they are the size of pin-heads. Later on there is inequality. We can not, however, attach much importance to this condition, as it also occurs in other diseases, but when the pupil is small at first, either paralytic dementia or locomotor ataxia is threatened.

The patient seems to be weak; but testing the strength shows that he is pretty strong, sometimes the strength is enormous. The muscles are only feeble at times from inattention and want of use of the will.

Epileptiform and apoplectiform attacks belong to the later stages. The patient suddenly falls down, more or less stiff, with loss of consciousness, but without the regular symptoms of epilepsy. There is, moreover, no aura. Patients do not fall with positive convulsive force, but simply drop down in a heap. We cannot make out the tonic spasms with pallor of the face, etc., of epilepsy, but the contractions are generally clonic, and there is redness of the face; and the tongue is not bitten. Patients remain a while unconscious, hence many call the seizures apoplectiform. In my opinion most of the attacks recorded in the asylum cases are epileptiform, but they are probably not seen early enough to make the diagnosis.

It is often very difficult to distinguish between apoplectiform and epileptiform attacks in aged people. This is so true that Trousseau relates many cases where seizures that were really epileptic in nature had been mistaken for apoplexy. As a part of the attack we sometimes have aphasia, which, however, is temporary in character.

The mental symptoms are in one sense simple. There is a gradually increasing dementia. We notice an impairment of memory and judgment, and a want of control of the animal instincts. The impairment of memory commences at the beginning of the disease, but it is not



much noticed for some months. They think that accuracy of memory consists in remembering things for a long time, whereas the true test is to find out whether the patient recollects recent events, or things that transpired a few hours or days before.

The lack of judgment is shown in business capacities which formerly may have been good but have now deteriorated, and in his relations with different persons.

As a consequence (?) of the progressive dementia there appears marked immorality, which is not voluntary or deliberate, but due to instinctive impulses. The patient shows a disposition to gratify his grosser animal appetites, without the control of reason.

As the case progresses the loss of memory and general failure of mind increase. The facies of the patient correspond to his stupid and inert mental condition, and he continues to have the trembling, and imperfect articulation. His answers to questions are simple, and he will say nothing at all of his own accord. However, he often looks well physically, seems to be in good condition and is even fat and robust.

Such patients have no striking manifestations of insanity, no delirium or violence, or marked evidences of melancholia. There are often no exalted notions as in the second form, and if any appear at any time they are quite transitory; the individual is simply well contented with himself and his surroundings.

We will pass now to the second form, which differs chiefly from dementia paralytica in the early development of a maniacal state with exalted notions.

The patient after he has passed through a period of moral deterioration, etc., which may precede any form of insanity, commences to have tremor, impaired speech, irritability of temper, insomnia, and other evidences of insanity. He begins to talk very extravagantly about his business. He tells every one he is going to embark in vast commercial or other enterprises whereby he will make immense sums of money. He will lavish money freely, and spend it on expensive articles that are utterly useless to him. He will give away sums of money or presents without any just reason.

The patient of whom I spoke to you a few moments ago from St. Louis, brought home to his wife a large amount of expensive jewelry though he knew she was in mourning at the time and could make no use of it. On another occasion he gave a begging clergyman twenty thousand dollars, which, though he was a wealthy man, was more than he could afford for such a purpose, and he would never have been so munificent in his former healthy state.

This exalted condition is sometimes manifested by attitudes, actions, and speech. But you must not look for these exalted notions to be too high. What is by no means an exalted notion in one person is decidedly so in another. Thus a country woman who has always dressed very plainly, wants fine dresses. To you, perhaps, such a notion might not seem very exalted, but you must compare the idea with the patient's condition in life. A laborer wants to be the Mayor of the town, and this, to him an exalted notion, would not be so to



another individual. One of my patient's wished to be Collector of the Port of New York. The exaltation of the notion is always relative to the person's habits and social status. Thus, to give one more instance, a poor patient whose family was in poverty, spent his last five dollars for a silver watch. Such a transaction was relatively more extravagant to him than the giving of twenty thousand dollars to a church was for the gentleman referred to.

The physical symptoms are very much the same as those already described in paralytic dementia.

There are other interesting features on the psychological side. A patient may become very violent, even maniacal, and this usually occurs after some contradiction. He may commence to strike those around him, or go into a violent passion which may result in mania. The condition of the patient then very much resembles the true maniacal condition. There are delirious speeches, hallucinations, maniacal facies, rapid pulse, fever of  $101^{\circ}$ – $3^{\circ}$  F., and much exhaustion. The patient may exhibit extreme sexual excitement.

A maniacal attack may last from a few days to a week or more. The attacks are usually shorter than in common mania, and the patient passes into a state of calm. Often patients are taken out of asylums as cured, when, in fact, they have only a remission of symptoms. It should be a *sine qua non* before the patient is considered cured, that the physical symptoms should have disappeared entirely.

Another type of insane manifestations that occurs is melancholia. Quite frequently patients with general paralysis are melancholic, and the melancholia is often tinged with hypochondriasis. It differs from the latter condition in the fact that the patient has no desire to be treated in order to get well. Patients sometimes have delusions about being persecuted, and having enemies seeking their destruction.

Dementia is present from a quite early period. Gross errors of judgment, and want of exact remembrance cause mistakes, and result in "misfortunes" in business, months before the patient is seen by a physician. As the disease advances, the loss of mind becomes more and more evident as shown by tests, and by the patient's facies. Even when boasting loudly of his power, wealth, plans, etc., his childishness is apparent.

During the later course of the disease, we have, from time to time, epileptiform and apoplectiform attacks, which may be very serious. We sometimes have aphasia.

There are some peculiar physical signs in the second variety. A considerable elevation of temperature takes place in the maniacal attacks, and reaches the highest figure here above all other kinds of insanity, except that of phthisical mania. In the latter variety Dr. Clouston found it as high as  $103^{\circ}$  or  $105^{\circ}$ , while in the variety we are discussing, it ranges from  $101^{\circ}$  to  $103^{\circ}$ . A former pupil of mine, Dr. Langdon, of the Poughkeepsie Asylum, has been able to verify these observations. In the ordinary condition of these patients he found no pathological elevation, but when they became excited the temperature rose; as also after epileptiform attacks. The pulse also becomes

more rapid, and increased arterial tension is said to be nearly constant.

Another symptom is soon later on in the disease, and that is a peculiar fragility of the bones. The animal matter in their composition becomes much diminished, and they are very easily broken. You have probably heard of cases, where the patient has been found with broken ribs, bringing odium on the officials of an asylum, when the fact is that the gentlest push on the bed, or fall on the floor may suffice to fracture the bones, and sometimes it happens where no violence at all has occurred. Some six or eight ribs have been found broken in one patient at the same time. The larger bones are not so often fractured.

In a considerable number of cases the optic nerves are the seat of some white atrophy.

The terminal stage of the disease is the same in both varieties. The dementia increases much as in the ordinary form of dementia, but a trace of the peculiar symptoms, the trembling, the exalted notions, etc., remains. In this condition the patient may be bed-ridden, and hardly able to articulate, yet he still gives absurd answers about his condition. One patient whom I recall had bed-sores over almost every joint and prominence, and was almost speechless, yet he kept on telling us about his immense mines of gold and diamonds in the Himalaya mountains, that he was the Lord Jesus Christ, and Michael the Archangel, etc., to the end of his life.

It is interesting and at the same time sad to attempt to realize the subjective mental condition in these cases. The extreme despair and terror of melancholia, the playfulness in monomania, the chaos, desperation and rage of mania, and the absolutely happy condition in general paralysis. This is one of the best arguments in favor of idealism; our conception of what things are, makes our life what it is. These parietic patients are happy, walking about, speaking, laughing, etc., in their cheerful way, drinking water and saying it is wine, wearing a piece of coal and saying it is a gem. What seems to be is real to them.

In general paresis death is brought about by a variety of causes. Some die from bed-sores, others from exhaustion produced by mania. In a few cases food may be refused. Another in a fit of violence may throw himself out of a window or commit suicide; this, however, is rare. In some cases the patient dies of phthisis. Some cases may last twelve years or more. In other cases cystitis and pyelitis may intervene, though they are not so common as in truly paralytic affections.

I will now call your attention to a few points in diagnosis, and first as regards the exalted notions. We may have these exalted notions with common mania, but in that case they are few and fixed, while in general paralysis they are numerous, abundant, and changeable. You will recollect the instance I related to you of a physician who was the subject of chronic mania and never thought himself to be any other personage than the Prince of Wales. In general paralysis the person has quite an array of extravagant ideas. He will relate to you

all his exalted notions in a rattling way, without stopping or dwelling long on any one in particular. He does not attach much importance to them, and if quiet will not harp on one idea, but the patient with systematized mania sticks strongly to his one notion. It is usually possible to make a radical distinction.

Another most important point in the diagnosis of this affection is the trembling speech and the angular handwriting, since they do not occur in any other form of insanity.

The importance of a correct diagnosis is immense. It may be quite immaterial, for instance, in many cases to make a differential diagnosis between the various forms of melancholia or mania. In those cases the subdividing line is a psychical and not a physical one, and the importance as regards treatment and prognosis is almost *nil*, for a large proportion of such cases get well, but if there is the least evidence of general paralysis with mania or melancholia, the patient will never get well. Consequently, I always fully inquire into the patient's antecedents, and look at the handwriting from different periods very carefully. You should learn the moral and mental condition of the patient for months before the attack, and search diligently for physical signs.

A few words as regards the etiology. It has been claimed that general paralysis is the result of vicious habits, and the same statement has often been made as regards other nervous diseases. The sexual, and other animal appetites, the former especially, are so unmasked in the disease, that the accusation has seemed to some to be well grounded. It is also often said of an hysterical girl that she has been addicted to excesses. Locomotor ataxia has also been laid at the door of immoral habits, and excesses. These notions are generally unfounded. Sexual excesses may possibly produce these diseases, but much more often they give rise to general nervous exhaustion—neurasthenia or nervosism so-called. A large proportion of patients with locomotor ataxia and general paralysis have always been perfectly moral until their disease appeared, and I maintain this in spite of the excesses exhibited, for it seems more probable that the symptoms shown are due to an elevation of the appetites and reduction of self-control, and not to want of morality, abstractly speaking.

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## HOSPITAL RECORDS.

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### ST. VINCENT'S HOSPITAL, NEW YORK.

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Reported by J. J. ULLOA Y GIRALT, M.D., House Physician and Surgeon.

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#### CASE OF RUPTURE OF THE BLADDER.

M. F.,—æet. 40.—plumber.—M.—Born in Germany.—Admitted to this hospital with the following history:—

While at work was caught between two railroad cars at pier 52. At the time of admission he was suffering from very intense collapse. Stimulants and rubefacients administered, but with no avail. Patient passed his fæces involuntarily, and had passed urine a few minutes



previous to the accident. He never rallied, and died twenty minutes after his admission.

On examination a tumor was noticed over the inferior part of abdomen, and the scrotum was very much distended, looking very much like scrotal hernia. Patient complained of pain over this place.

*Post-mortem examination.*—Extravasation of blood between fascia and abdominal muscle. Large amount of coagulated blood in the peritoneal cavity. The fundus of the bladder was found to be completely torn across. All the other abdominal organs found to be in a normal condition. No bones broken.

#### CASE OF PROLAPSE OF RUPTURED URETHRA, WITH RUPTURE OF THE BLADDER.

James R.—an African—41 years of age—Laborer—M.—was brought to this hospital on July 5th, with the following history:

While at work laying pipes on Canal street, was struck by one of the Bleecker street cars on the side and abdomen. When brought to the hospital he complained of very severe pain in his hip and abdomen; as he laid more stress on his hip it was examined, but nothing excepting a contusion made out. About 9 P. M. I was called to see him, and he told me he felt like passing urine, but was not able to do it. I introduced the catheter without much trouble, and drew some bloody urine. I pressed on the abdomen and some more came out, but not in sufficient quantity to satisfy me, or to relieve his desire. Signs of slight extravasation of urine were found in the abdomen and perinæum.

Dr. Stephen Smith, the attending surgeon, saw him the next day, when the signs of extravasation were very well marked. He made a perineal incision to relieve tension, and some urine came out. Symptoms of peritonitis began to appear soon after, and the patient was kept under the influence of opium all the time. He continued complaining of pain, and about the 15th of July pus was seen coming out through perineal opening. He kept on losing flesh and becoming weaker and weaker every day. Lately something that looked very much like faeces came out through perineal opening, which gave rise to the opinion that the rectum must have been ruptured. The discharges from the perineal opening became very offensive, and looked like broken down tissue. His wound was dressed with a solution of carbolic acid, and plenty of stimulants, quinine and iron with the most nutritious food were ordered. Patient didn't seem to derive any benefit from treatment, and he died on August 2d.

*Post-mortem examination.*—Adhesions were formed between different loops of the intestines, and to the parietes of the abdomen and pelvis. Signs of extravasation of blood in peritoneum. Pus and broken down tissue in peritoneal cavity, and also under the fascia of the right side, extending to about junction of upper with middle third. Kidneys, especially the left one, were found to be degenerated. Pus came out of left ureter on pressure. The bladder was atrophied

to some extent, and was ruptured on the anterior surface about the middle portion.

All the other thoracic and abdominal organs were found to be normal. The right pubic bone was found to be broken across very near the line of junction with the ischium. The left pubic was broken in two places, leaving a fragment of bone between the two lines of fracture.

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#### CASE OF DISLOCATION OF THE CARPUS FORWARDS.

E. R.—45—Ire.—Laundress—S.

When brought to the hospital on the 3d inst., we got the following history:

While intoxicated she fell on the street, and a car passed over her arm. On examination we found first a large lacerated wound over the dorsum of the hand, and a smaller one on the ball of the thumb. To facilitate the examination I put the patient under ether, and found no crepitus anywhere. The carpus was displaced forwards, and the radius and ulna were very prominent on the back of the hand, we being able to feel their articulating surfaces with no solution of continuity. After a careful examination, I satisfied myself that the injury was a dislocation of the carpus forwards.

Dr. J. L. Little, the attending surgeon, saw the case next day, and although I had reduced the dislocation and put the arm in an anterior splint, he thought that my diagnosis was correct.

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#### PERISCOPE.

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#### TRANSACTIONS OF THE SEVENTH CONGRESS OF THE SOCIETY OF GERMAN SURGEONS.—CONTINUED.

Translated and Abstracted

BY

C. SHOENEMANN, M.D., OF NEW YORK.

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#### VON LANGENBECK ON EXARTICULATIONS.

L. demonstrated a case of exarticulation in the elbow joint, which operation is brought into unjustified discredit, and which even in 1871, in Paris, was called a surgical error, but in reality it is preferable to amputation of the humerus, and is less dangerous. The longer cavity produced by the exarticulation is an undisputed advantage.

The exarticulation of the olecranon is very easily made when the knife is carried in the proper direction, obliquely, upwards.

When demonstrating a case of exarticulation in the knee-joint, von Langenbeck remarked, that he would prefer an exarticulation to an amputation higher up as well in the knee as in the elbow on account of the less danger and much better ability to walk.

The operation of course after Lister's method is indicated in disintegrated and partly opened joints. Of the ten operations he performed, three occurred in an acute angular ankylosis, 7 were made in healthy joints.

L. asks: Is the patella to be removed with the whole capsule or not? If left, it is of no benefit. Of the seven cases two proved fatal. The one patient came to the clinic with chills twelve days after the severe operation, and died of pyæmia. The second suffered from dementiæ paralytica, which made a complete rest absolutely impossible.

Upon discussion, Prof. Uhde referred to the good results with which he had performed extirpations in the knee-joint (one patient having died out of 12, and in the elbow-joint, where no patient had died.

Sheede & Lücke operated with the same results.

The extirpation of the whole synovial membrane is not critical, but not necessary; the patella might be left or not.

Statistics show, that the mortality after this operation becomes more and more less. v. L. showed another patient, on whom he had operated after Lister 12 days ago, the wound looked good, only two openings from the drainage tube visible, everything favorable, except muscular spasms, which L. observed in different cases and which are often so severe as to tear the sutures.

Thiersch observed the same trouble; to prevent it, he fastened the patella with ivory nails on the femur, also in Pirogoff's operation the calcaneus on the tibia.

Against this, v. L. remarked that as the muscles in question are the flexors not the quadriceps, extension with adhesive straps is perhaps indicated, but that is very difficult to apply in the antiseptic treatment.

While some never observed these muscular spasms during the antiseptic treatment, Bardeleben and König contradict him and say, that their occurrence is not unusual, they noticed them in an aseptic as well as in an antiseptic course.

v. L. thinks it necessary to make a large anterior flap, by an oblique posterior incision.

Uhde recommends a triangular flap. Most of the surgeons lay stress on the great value of first intention.

Thiersch and v. Langenbeck think it necessary for preventing mortification of the flaps, to have the sutures go not only through the epidermis, but also through the fascia, on account of its great vascularity.

v. L. showed a child two years old, on whom he performed resection of the knee-joint. He made an interior semi-circular incision, extirpated the whole synovial membrane and saved the quadriceps and as much as possible of the epiphyses.

The external condyle, the tibia and patella were diseased. He sawed off in very thin layers until he reached healthy bone. The wound healed per primam intentionem, except the skin, which had been treated before with *ferrum candens*. Difference between the two legs, Dec., '77, = 1 ctm.; Feb. 20, '78, the right resected 47 ctm., left 47.5 ctm.; April 11, right 48 ctm., left 48.5.

Peterson and Hahn had similar results in those cases where they saved the epiphysis, but König observed after this operation enormous shortening as late as 8-9 years after, by an increased flexion and a cartilaginous ankylosis. He does not operate typically, he



saves all he can and then says: theoretically, we ought to give the patient a movable joint, but in practice we have to avoid it. He always makes a transverse incision.

v. L. made his interior semi-circular incision the first time about 15 years ago in a case which was not followed by ankylosis and where he intended to save the flexors. He thinks it very difficult to extirpate the synovial membrane without removal of the patella, by the transverse incision. The resection did not prevent the growth of bone.

Hueter sustains König's opinion concerning the incision, he wants to get an insight into the joint. After an oblique incision the ligamentum patellæ will always reunite with the tuberosity of the tibia. He advises not to saw off too much of the articular surface of the bones, because inflammatory spots in the tibia are often overlooked which ought to be scraped. Good motion is often obtained in consequence of this; he has had it in three out of four patients.

Kocher made 25 operations since 1872, three of them having proved fatal. He observed later a shortening, in one case of 9 ctm., where he only removed 3 ctm. The influence of the antiseptic method to bring on an unlooked for motion is without doubt. K., therefore, treats these cases by the open method, and lets them heal by suppuration.

Scheede thinks the preservation of the flexors necessary, especially on account of the consequences of the antiseptic treatment, and he thinks Langenbeck's longitudinal incision is indicated for this operation.

He sawed off the condyles obliquely, and united the bones by sutures to prevent motion.

Hueter thinks motion is harmless. If the ligam. patellæ is obliquely separated, the flexors are preserved. Langenbeck's longitudinal incision might be indicated for military surgery, but not for private practice.

Koenig unites the bones always by silver sutures, which irritate slightly. The sutures of course have to remain there for a length of time, and must be removed later on, unfortunately with a certain degree of force.

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#### PROF. VOIGT (GREIFSWALDE) ON RESECTIONS.

V. presented a patient 15 years old, on whom he had performed resection of the elbow joint, about one year ago, and discoursed upon resections in the elbow joint by functional indication.

The presented patient regained his elbow joint in regard to form and function nearly complete.

Patient fell while turning, dislocated both radius and ulna laterally and fractured the condyles of the humerus.

The dislocation not having been replaced, healed with a perfectly straight ankylosis.

Up to this time no surgeon has acknowledged in general the principles of resection for only functional reasons, because nobody has been able

to guarantee the restoration of the normal function. Very often after resection the surgeon has only been able to attain a straight ankylosed useless joint, or in the most favorable case a right angular ankylosed one of some use.

If we intend to secure a movable joint, we must necessarily restitute the normal form of the new forming articular surface, i. e. restoration of the resected parts.

The pressure of the bones in the contiguity to each other, the pulling of the surrounding muscles and ligaments are the factors for the formation of a joint, just as well during the foetal development as during the formation of a regenerated joint; and the earlier we look out for the effect of these factors, and the more we gain of them, the more guarantee we will have for the restoration of form and function.

Therefore it is necessary to preserve most carefully the periosteum, especially its inner bone forming layer and the insertions of muscles.

It is very difficult to fulfill these indications after resection, especially in a healthy joint, not so in an inflamed suppurative one, where it is very easy, to detach the periosteum and the insertions of muscles from condyle and olecranon.

V. operated in the following way. He exposed the joint by two parallel longitudinal incisions in front of the external and internal condyles. After the incision in this case 6 ctm. long, has been made at the anterior border of the epicondylus internus he lifted the soft parts somewhat, separated with a chisel the flexors and some lamellae of bone from beneath the epicondylus, lifted all the soft parts and periosteum with an elevator and divided finally the internal lateral ligament obliquely towards its ulnar insertion.

In the same way he made a second incision in front of the external condyle through the soft parts, downwards below the head of the radius, upwards to the shaft of the humerus, separated with a chisel all the extensors and divided with a saw the proc. cubitalis humeri obliquely above the condyles.

Now he was able without any difficulty to draw from the radial longitudinal incision the soft part backwards so far as to separate the insertion of the triceps with periosteum and lamellae of bone from the olecranon and the proc. coronoidei from the ulna, after having pressed the latter forwards.

By this modification of the usual subperiosteal resection V. has been able to preserve the insertion of muscles and the periosteum.

He operated after Lister's; the arm resting afterwards in a right angular wire splint.

The wound was nearly healed after 14 days, in the 3d week the formation of bone and firmness already permitted motion, which soon afterwards could be practiced actively. The arm was now put in an articulated silicate of soda dressing, and flexion and extension commenced by burdening the hand with a small weight, which was increased every day.

This is to be done as early as possible, and to continue for a long time, with great perseverance.

## SCHEEDE (BERLIN) ON RESECTIONS.

Sch. recommended in certain cases the resection of the head of the bone by an anterior longitudinal incision i. e. simple decapitation.

Many surgeons, viz., Volkmann did not agree with him, because their operations after this method resulted more in ankylosis, than when they resected below the trochanter.

Scheede convinced his colleagues that this is not the case.

He showed a patient who had been suffering from a coxitis 15 months, which had shortened the limb 3 cm.

The epiphysis had separated, the head of the femur was united with the acetabulum, the neck dislocated. The head was removed out of the acetabulum and the neck replaced.

The result was excellent, the operated leg secured a support so complete and firm, that the patient can hop with it, the motion is nearly the same as in the healthy joint.

Sch. performed after the same method another resection of the hip in consequence of the suppuration of the joint after an infectious osteomyelitis of the ileum; healing set in, except a small fistula which leads the way into the fossa iliaca interna, the remnant of the primary osteomyelitic iliac abscess.

The joint itself is perfectly healed with very good motion.

By this method the upper margin of the neck of the femur is borne up against the margin of the acetabulum and the femur gains in this way its firm hold.

On account of the very little shortening, the patient almost walks without limping.

When the neck is entirely destroyed the anterior incision offers no advantage.

In consideration of these results, it is not desirable even by the posterior longitudinal incision to remove the trochanter, its extreme apex will do.

Drainage is very easily secured, extension is not interfered with.

In the after treatment as well as after the cure, it is necessary to make forcible abduction of the femur.

Taylor's splint is objectionable, as it deprives the joint of its firmness and improvement in perfection; a simple support is sufficient, and Sch. uses a simple splint fastened on a pelvic belt which by the use of a simple screw accomplishes the desired motion.

Upon discussion Hueter remarks, that the simple decapitation is not objectionable, he operates, however, according to circumstances.

Von Langenbeck removes (and has done so for a long time) only the head, if the neck is healthy, and knowing that many surgeons contradict him about this method, he will never abstain from it on account of the good results he obtained himself, and the results which Prof. Heine gained after his experiment on dogs.

The hip joint is exactly fit for subperiosteal resection.

Notwithstanding the motion in the beginning, we must always expect ankylosis.

v. L. recommends for practical reasons the anterior incision only in cases of separation of the epiphysis and in shot wounds.



Von Langenbeck, Strömblad and Wagner agree, that a decision referring to the mobility of the joint after an operation should not be given, until a very long time after the cure.

*Scheede then presented* a patient on whom he performed resection of the tarsus. Patient suffered from congenital clubfoot in the highest degree and used all the orthopaedic contrivances without any effect.

The removed wedge-shaped piece basis outwards and upwards about  $2\frac{1}{2}$  cm. consisted of the anterior part of the calcaneus and the foot of the astragalus, the greater half of the cuboid bone and a small part of the os naviculare.

Sch. chose a right angular incision whose perpendicular shank went up close behind the line of Chopart's joint, from the outer margin of the foot to the head of the astragalus; the horizontal shank passing at the outer side of the cuboid bone to the front.

By this method he did not come in contact with the tendons.

The tendons of the flexors dorsi pedis are in clubfeet of an high degree, generally drawn to the concave side, or if not, it can be done very easily.

The tendon of the peroneus brevis at the inferior margin of the foot is easily saved.

The reposition after the operation was rather complete.

The great skin flap was so much reduced in size, as to answer the purpose and the wound closed by sutures, after a drainage tube has been put in.

There being tendency to equinus, Sch. performed at the same time tenotomy of the tendo Achillis.

Lister's antiseptic method—self-evident. The foot was then fastened to a Volkmann's hollow spint; the wound healed per primam intentionem, the fissure between the bones became filled with the well known bloody coagulum.

Sch. operated on the 1st of October, on the 26th of Nov. the wound had healed and a plaster-of-Paris dressing could be applied. 4 weeks later the patient walked about normally (without a Scarpa's shoe) and now he puts the whole sole of the foot upon the ground.

A few weeks ago, Sch. performed the same operation at the same time on both feet of a lady, and now he can already promise the same success.

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#### SCHLEDE, (BERLIN), ON RESECTION OF BOTH ELBOW, BOTH WRIST, AND BOTH ANKLE JOINTS ON THE SAME PATIENT.

Patient—female, 19 years old, chronic polyarthritic rheumatism. 4 years ago the right ankle joint became swollen, red and painful upon making any motion.

Gradually the other joints became affected in the same way and on the 15th of Aug. '77 when she came under Scheede's treatment, both elbow joints, both wrist, both knee, and both ankle joints were perfectly immovable and bony ankylosed, the greater part of the interphalangeal and metacarpophalangeal joints deformed and totally im-

movable, the knees strongly deformed, ankles and elbows considerably swollen.

Only the wrist joints retained a nearly normal form.

The patient is entirely helpless, deprived of the use of her arms, and not even able to hold the crutches to walk on.

The knees being straightly anchylosed, did not seem to be a proper subject for surgical treatment.

Scheede resected on the 22d of Sept., the left wrist and both elbow joints; on the 10th of Oct., the left ankle, and on the 14th of Jan., the right hand and the right ankle.

The incisions through the soft parts have been made according to Von Langenbeck's method.

On the wrist joint he operated by a dorso-radial incision, which notwithstanding the totally menting together of radius, ulna-carpus and meta-carpus proved to suffice completely; he resected the lower extremities of radius and ulna, the entire carpus and the bases of the metacarpal bones.

The left, first resected hand, gained a free and strong active mobility; the right hand, which is just healed, shows also active motion, (of course not yet as much as the left).

The left elbow joint is becoming anchylosed again, the right on had very good motion, but it diminished later on.

From experience the author learned, that the more he resected the better motion he gained.

The ankle joints are movable in small limits.

Patient can walk on crutches, which she could not before the operation; she also can dress herself and take her meals and is very much pleased by the great improvement, comparing it with prior absolute helplessness.

Hueter mentions a case where after resection of wrist and phalanges, in consequence of ankylosis, the patient gained so much mobility that she was able to knit.

Von Langenbeck emphasizes that it is desirable to fix the ankle joint in a right angle, to enable the patient to walk with, in case of ankylosis.

Dr. Güterbock, (Berlin), presented a girl 7 years of age, on whom he resected a wedge-shaped piece of the diaphysis of the radius, in consequence of an abnormal long overgrowth.

The success *quo ad functionem* was without reproach.

G. also presented two colossal specimens of an exostosis removed from both femurs.

They excited great attention on account of their very fresh appearance, although the section had been made 6 days ago.

The specimen had been preserved after a new method by Mr. Wiedersheimer, preparer of the anatomical museum, Berlin.

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#### DR. WOODWORTH'S VIEWS OF YELLOW FEVER.

The following circular has been lately issued to the Medical Officers of the Marine Hospital service:—

The weight of scientific evidence seems to warrant the conclusion that yellow fever is produced by an invisible poison capable of self-multiplication outside of the human organism, which it enters through the air passages. The poison-germ or miasm is a product of the tropics. In this country, yellow fever has prevailed in most of the Gulf and Atlantic cities, and in many of the towns along the Mississippi river. In some instances it has been carried inland with the people fleeing from infected localities, but it has never shown a disposition to spread epidemically at points remote from the continuous water-roads of commerce, or to lodge in high, salubrious places. The cities of the Great Lakes have always been free from the disease. Yellow fever cannot be said to be epidemic in the United States, from the fact that in some years it does not appear, though the imported germ undoubtedly survives the mild winters. It appears to have about as much resistance of cold as the banana plant. When the banana stalk is killed down by the frost, the yellow fever does not return until again imported. The germ is transmissible. It is capable of being transported in the clothing or personal effects of passengers and sailors, but its spread from one city to another is chiefly accomplished by vessels—their damp, filthy holds and bilge water being its favorite lurking places. Confinement, moisture, and high temperature favor the multiplication or virulence of the poison. When a wharf or spot of ground or a house becomes infected, the poison at once commences to spread, creeping slowly in all possible directions, continually enlarging the area around the center of infection unless checked by disinfection, as has undoubtedly been done by the use of carbolic acid in New Orleans in former outbreaks. Yellow fever is not communicated from the sick to the well; the sick and well being dangerous only as possible carriers of the poison-germ or miasm. In support of this assertion it may be stated that at quarantine hospitals where the effects of the yellow fever patients are burned, or otherwise thoroughly disinfected before the admission of the patients, the attendants do not contract the disease. This has been demonstrated many times. All well persons whose effects have been disinfected may be considered harmless after six or seven days have elapsed from the time of leaving an infected district or vessel, as the period of incubation of the disease lasts from two to six days. This simplifies the question of quarantine—absolute land-quarantines being deemed impracticable—and indicates the direction of preventive measures to the vessel, cargo, or the locality, if the poison has found lodgment on shore. A vessel may escape infection if kept clean and dry, and if all parts capable of being closed are frequently subjected to the fumes of burning sulphur, and the men employed on board are compelled to bathe and change their flannels daily and not allowed to sleep on deck or in the hold of the vessel. There is an example of a ship trading between Havana and New York, upon which these precautions have been enforced for a period of twelve years, and not a single case of yellow fever has occurred on board. Though not sufficiently demonstrated to state as a fact, still there seems good reason to believe that much may be accomplished by individual prophylaxis—by



the use internally of small doses of sulphate of quinia at regular intervals, and of tincture of iron and chlorate of potassa. As the poison enters the system through the air passages, it has been suggested that the nasal passages be bathed frequently with a solution containing quinine, to be applied by means of a nasal spray.—JOHN M. WOODWORTH, *Surgeon-General U. S. Marine Hospital Service.*

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## NEWS ITEMS AND NOTES.

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**A Man Who Burst.**—We have all of us, in early life, had held up to us as a warning, when too voracious, the terrible story of the boy who ate so much that he burst. The learning of maturer years led us too hastily to discredit this frightful example; for here, in the last number of the *Vierteljahrsschrift, für Gerichtliche Medicin*, July, 1878, Dr. Bremuse gives a detailed account of a man who literally burst, split his diaphragm in two and died, from four plates of potato soup, "numerous" cups of tea and milk, followed by a large dose of bicarbonate of soda to aid digestion! His stomach swelled enormously, and tore the diaphragm on the right side, causing immediate death. The case is probably unique.—*Med. & Surg. Reporter.*

**Treatment of Ununited Fractures.**—The *Medical Press and Circular* states that Mr. Fitzgerald, of Melbourne, has been highly successful in treating ununited fractures by the hypodermic injection of glacial acetic acid (five to ten minims) between the ends of the bone. At first there is a sharp pain. Any cartilaginous thickening if present is soon resolved and reabsorbed, and union is rapid, splints of course being applied.

**Skin Grafting in the Colored Races.**—A French naval surgeon, Dr. Maurel, stated at a scientific meeting in Paris, that during two years' residence at Guiana, he had made numerous experiments on epidermic transplantation, placing the graft on persons of different race and color. He found that not only did the graft take well, whatever description of transplantation was made—whether transported from the skin of a black to that of a white or the reverse—but that there always remained a whitish line wherein pigmentation was not produced. The pigment disappeared when a graft was transplanted from a black to a white person; but when the two individuals were highly colored, the graft remained black, except at the point of cicatrization.—*Med. & Surg. Reporter.*

**Poisoning by Peach Stones.**—A fatal case of poisoning by peach stones which is noted in the French papers as having recently occurred in Paris, should serve as a warning to families in which children are allowed to look after themselves for hours at a time. Probably very few adults themselves know how poisonous peach stones are. The victim of the recent accident in Paris secreted the stones of a number of peaches, and, obtaining a hammer, when left alone broke them open industriously and ate them; the result being that he was fatally

poisoned by hydrocyanic prussic acid. Since the peach season is now upon us, it is well to explain what quantity of poison the peach stone possesses. Writers on toxicology state that one ounce of the kernels contain about one grain of pure prussic acid, and this quantity, it is well known, is sufficient to kill any adult person. Even two-thirds of a grain has very often proved fatal, and, indeed, may well be regarded as a fatal dose for any child.—*Scientific American*.

**The Population of the Earth.**—The fifth publication of Behm and Wagner's well known "Population of the Earth," makes the number of the earth's human inhabitants for the current year 1,439,145,300, an increase of fifteen millions over the estimate of last year. The increase is attributed partly to natural growth, partly to exacter knowledge due to recent censuses. The distribution of the population among the grand geographical divisions is as follows: Europe, 312,398,480; Asia, 831,000,000; Africa, 205,219,500; Australia and Polynesia, 4,411,300; America, 86,116,000.—*Scientific American*.

**Public Heating by Steam.**—Auburn contemplates the introduction of the Holly system of steam heating, and at a recent meeting of citizens to consider the project, some very interesting statements were made by Mr. Holly and others relative to the working of the system in Lockport last winter. To test the system financially some three miles of main pipes had been laid through sparsely settled neighborhoods, and several houses heated by steam. Each consumer contributed the amount of his previous year's coal bills, and the amount reimbursed the company for expenses.

This was thought a thorough test, since in a thickly settled district the system would work more economically and profitably; the extreme mildness of the winter, however, may have been an element worth considering. The mains ran up hill and down, and the loss from condensation was small, less than three per cent. on a mile of pipe when the full capacity of the main was used; the water so formed was carried along with the steam into the houses, where it was collected, with that from the service pipes, in reservoirs, giving a supply of pure soft water for domestic purposes. The cost of fitting up a house of "good average size" with radiators, pipes, etc., ready to be heated by steam, was one hundred and thirty-five dollars. The cooking done by steam heat was highly commended.—*Scientific American*.

**Objections to the use of Carbolic Acid in the Treatment of Piles.**—In a paper read before the Kentucky State Medical Society, Dr. Mathews, of Louisville, urges the following objections to the use of carbolic acid in the treatment of piles:—1. It is just as painful as the ligature; 2. It is insufficient. 3. Death is to be feared. (a) From peritonitis; (b) from embolism; (c) from pyæmia. Mr. Allingham, of London, has used this acid in six cases, with very unsatisfactory results, and he considers the ligature the most efficient remedy we have. Three cases are cited in which *very violent inflammation* followed the use of the acid, and this coincides with Dr. Mathews' personal expe-

rience in many cases. It can only be cured by a process of *inflammation*, and *sloughing*, and this once started is immediately beyond our control. Without any prescribed rule as to the graduation of the dose, we should be liable to excite too little inflammation, and thus fail to cure, or too much endanger.

Peritonitis may be excited by extension of the inflammation, or by gangrene and perforation of the bowel. Embolism may occur from the detaching of a portion of coagulum, and, this is very liable to occur. Death from pyæmia is more likely to occur with this treatment than after the use of the ligature.—*The Doctor*.

**Treatment of Erectile Tumors.**—Verneuil (*La France Medical*) recommends injections of small quantities of the following solution:

Distilled water,	}	aa. 30 grammes.
Perchloride of iron,		
Chloride of sodium,		4 grammes.

Several punctures may be made, and a few drops injected at each, the skin surrounding the tumor being firmly pressed by the ring of a key, to prevent absorption taking place before the clot is formed.—*The Doctor*.

**Treatment of Hiccough by Pilocarpine.**—Ortille (*Bull. de Thérap.*) stopped at once an obstinate hiccough by  $2\frac{1}{2}$  centigrammes of the muriate of pilocarpine. The hiccough did not return.—*The Doctor*.

**Ergot in Bleeding Piles.**—Lansing says he (*Mouvement Medical*) has found ergotine suppositories, used night and morning, efficacious in this malady.—*The Doctor*.

**Honors.**—The University of Edinburgh has conferred the honorary degree of L.L.D., on Dr. Risdon Bennett, Sir Joseph Fayrer, and Prof. Lister.

**Liquor Bismuthi for Nasal Catarrh.**—Dr. Q. C. Smith writes to the *Pacific Medical Journal*, recommending for nasal catarrh liquor bismuthi and water, equal parts, applied one to three times a day, to nostrils, pharynx and naso-pharyngeal cavity, freely, with a spray producer. He has found this during an experience of several months, to produce very satisfactory results. Sulpho-carbolate of zinc, in weak solution, as mentioned by other writers, he regards also as a very efficient remedy; applied in the same manner.—*Med. Press*.

**The Profession and the Plague.**—Contributions from the physicians of this city in aid of our sick and suffering medical brethren in the south-west will be received by the Medical Society of the County of New York. Donations from \$1.00 upwards will be acceptable and may be sent to the President, Dr. J. C. Peters, 83 Madison av., or to any of the officers of the society.

The American Association for the Cure of Inebriates, will hold its tenth annual meeting at Boston, Mass., commencing Tuesday, Sept. 10th, 1878, at 10 A. M., in "Union Hall." A very important meeting is anticipated.



**Anaesthesia by Rapid Respiration.**—A thesis, under the above title, has been awarded the Toner gold medal at Jefferson College, Philadelphia. In this essay a good description is given of Dr. Bonwill's method, of which the following resumé will be read with interest:—

He found that air drawn into the lungs, in quantities three or four times as great as required by the body, was capable of producing anaesthesia sufficiently profound to render minor surgical operations painless. Dr. Bonwill could only account for the anaesthesia by giving the credit of its production to a super-oxygenation or a surplus of nitrogen, or to a mixture of the two, and concluded from numerous experiments, that—

1st. Breathing full, at ninety to the minute, will produce anaesthesia of the surface of the body in less than five minutes, so that a pin or needle thrust half an inch into a limb is not felt.

2d. This anaesthesia is not due to a "surplus of oxygen, or of nitrogen, or of the two combined," but follows from the rapidity of the breathing, according to laws certainly known since the beginning of this century.

3d. The rapidity of the breathing induces the anaesthesia by the following sequence:—

*a.* By its over-action the blood of the body is determined towards the lungs. (Any muscle or organ violently exercised for a short time, receives a surplus of blood; a well known fact.)

*b.* The blood having assumed this centripetal determination, leaves the surface of the body.

*c.* When the surface of the body is deprived of its blood, superficial anaesthesia supervenes. Wardour, in 1816, produced anaesthesia for surgical operations by venesection until the surface was completely blanched.

*d.* A part completely deprived of communication with the trunk by blood supply or return, will be anaesthetised. But (*d.* is not necessary, from the fact that for amputation, the surgeon will depend on an established anaesthetic. The complete withdrawal of the blood from a part involves an anaemia of the nerves, which probably is the direct cause of anaesthesia.

With these facts before him, the experimenter can account for the congestion of the lungs; the tingling first felt at the extremities, and extending toward the central organs; the labored action of the heart; the clammy sweat and cool surface produced by Bonwill's method. He will also understand the return of the natural status after the discontinuance of the rapid breathing.

The fact that the lungs and the central organs have the blood of the body thrown upon them, awakens the careful surgeon to the danger of the indiscriminate application of this method.—*Med. Press.*

# THE HOSPITAL GAZETTE

AND

## ARCHIVES OF CLINICAL SURGERY.

A WEEKLY JOURNAL OF MEDICINE, SURGERY AND THE COLLATERAL SCIENCES.

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### LECTURES.

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#### FIVE CASES OF DISLOCATION OF THE HUMERUS, AND A CASE OF NON-UNION OF THE CLAVICLE.

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A lecture delivered at the Long Island College Hospital, Brooklyn, N. Y.

BY

JARVIS S. WIGHT, M.D.,

Professor of Surgery.

[REPORTED FOR THE HOSPITAL GAZETTE.]

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GENTLEMEN:—I bring before you a dislocation of the humerus. The case affords me a text for a few words—on the five cases of dislocation of the humerus that have been shown to you during the past term.

CASE I—E. M., 24 years of age, Austrian, ship's steward. On the 29th of March, 1878, fell on deck, with the right arm extended, and catching in the anchor; was admitted to the hospital on the same day, having the right arm dislocated, the anatomical neck of the humerus resting under the coracoid process. Please to remember that the condyles of the humerus and the axis of its shaft will direct you to the location of its upper end. Also remember that the subcoracoid dislocation is very common—and that the greater tuberosity of the humerus is apt sooner or later to slip from under the coracoid process, so that the dislocation will be sub-clavicular. Let there be no unnecessary delay in the reduction of a dislocation, for an easy task may become in a short time a very difficult one.

Some of the dislocations of the humerus can be reduced by gentle manipulation. But you must be very careful not to do harm by severe manipulations. You will find it better practice in most cases to administer ether, overcoming the resistance of the muscles, and then reduce the dislocated bone, by abduction, traction, counter extension, and outrotation, as you saw done in this case. This patient made a good recovery.

CASE II.—Dan'l Hayes, 56 years of age, born in Ireland, porter in a grocery, fell down cellar, while carrying a barrel of potatoes, the right arm catching on the floor, and the head of the humerus being thrown into the axilla under the clavicle, on the 10th of April, 1878, and was admitted to the hospital on the same day. This man after coming into the hospital, with his left hand raised his right upper limb forward and upward, till the inside of the arm was placed along the side of the head. The surgical neck of the humerus was resting inside the coracoid process, and the head of the humerus was under the great pectoral muscle, pointing toward and almost touching the ribs. The patient continued to hold his right limb in this position, saying that it was much easier when he held it there. I am not aware that there has ever been another case just like this. You will remember that we gave Mr. Hayes ether; and then in the most gentle manner retraced, as it were, the steps of the injury, by easily moving the limb forward and downward and somewhat outward, putting it in the place of the original dislocation under the clavicle, when the remainder of the reduction was accomplished the same as in case first. I have never known a case do better; this man is now at work again carrying boxes, baskets, and barrels of groceries.

A remarkable fact, in regard to this patient was that he had an ununited fracture of the left clavicle, the history of which may be put on record as follows, to wit: Daniel Hayes was run over by a cart in 1853, breaking his left clavicle and three of his left ribs. At the time of the injury he was treated by Drs. Cockey, Miller and Seymour. Subsequently he was in the New York City Hospital under the care of Drs. Buck, Van Buren and Watson. These statements are from the patient, who knows nothing about the nature of the treatment he received. From what I know of the gentlemen named, we can be sure that Mr. Hayes could not have had better treatment.

I made the following measurements in your presence, namely: The inner fragment was two and one-half inches long; and the outer fragment was three inches long; the entire length being five and one-half inches. The length of the right clavicle was five and six-eighths inches. The outer fragment points downward, the inner end resting between the second and third ribs; and the inner fragment points upward, making with the axis of the sternum an angle of about 120 degrees; so that the ends of the two fragments are about two and one-half inches apart, as the patient stands, having his arm hanging by his side. On raising his left upper limb up by the side of, and over his head, the ends of the fragments come quite near each other, and overlap about one and one-half inches. All the motions of this limb are quite good; and Mr. Hayes is able to do all kinds of heavy work as well as he could before his clavicle was broken, so far as we now can tell.

This is a very important case, not only in a surgical, but in a medico-legal point of view. If the able surgeons who treated this broken bone, could not obtain union, those who have less skill must be reasonably excused for having no better results. And if such great utility can follow an inch displacement after non-union of a broken clavi-



cle, legal action could not be brought for the impairment of function. No suit for mal-practice could be successful in this case.

Gentlemen, I am very glad to aid in putting around the practice, the rights and the privileges of the profession so many strong barriers that none can break through them. Let us now return to our cases of dislocation.

CASE III.—George Andersen, Norwegian, 28 years of age, a seaman, fell overboard from a steamer, off the coast of Florida, April 7, 1878, and dislocated his right humerus, probably under the coracoid process, whence it has made its way under the clavicle, where it was on the 19th April, the date of his admission to the hospital. The bone had thus been out of place 12 days. Let me go over the main points of the reduction. Ether was administered. The arm was moved in various directions. There was adduction, abduction, rotation, circumduction, and motion forward and backward; in order to break up as far as possible any adhesions that may have taken place. These adhesions were felt and even heard to give way. A small pillow was then put in the axilla, and on that the stockinged foot, and traction applied to the arm by the hands of the surgeon, the fore-arm of the patient being flexed to a right angle, so as to relax the biceps brachii. There was no reduction on the application of a force that would lift 700 pounds. An assistant then made traction also, and there was no reduction on the application of a force that would lift 1,400 pounds. This last amount of traction was applied several times ineffectually. The arm was then slowly raised from the side of the patient, the foot being placed on the acromion, and the same amount of traction was made outward and somewhat backward, and then upward till the shaft of the humerus met the acromion; again there was no reduction. Then the limb was brought down by the side of the patient, a towel being put around the axillary part of the arm as far up as possible; one strong assistant made traction as before, downward, outward, and backward, having the foot on a pillow in the axilla; while I put my foot on the acromion, and pulled on the ends of the towel directly outward and somewhat backward. The traction in each direction was about 750 pounds of lifting force. The head of the humerus went into the socket. This is a very successful way to reduce a dislocation of the humerus, and so far as I know it is very safe. The tissues around this patient's shoulders were greatly swelled, with considerable extravasation of blood on the day after the reduction. The case did well.

CASE IV.—Eliza Purdy, working woman, 45 years of age, born in Ireland, admitted to the hospital May 20th, 1878, having a dislocation of the left humerus, under the clavicle, with symptoms of fracture of the glenoid cavity. She had fallen on the sidewalk, five weeks previous to admission, striking upon her left shoulder. There was considerable swelling after the dislocation, which was diagnosticated at the time. Let me say to you that there are cases of dislocation of the humerus, accompanied by severe contusion of the shoulder, that have not been made out by the most careful surgeons. In all such cases we should be very guarded in what we say to the patient. For

we cannot be sure of the conditions of the injured parts at the outset. There may have been great difficulties in the way of making a diagnosis. Remember that you belong to a *liberal* profession.

Now I am quite sure that the lip of the glenoid cavity was broken in this case. The reasons for this statement will be restated as we go along. Let me briefly remind you of the chief points in the treatment. The patient being under the influence of ether, the manipulations for breaking up adhesions were made with great care. The same methods for reducing the dislocation were made as in the previous case. This patient was a light, and somewhat delicate female, while the former patient was a healthy, muscular male. The efforts at reducing the dislocation of the female were prolonged to nearly an hour, while the efforts at reducing the dislocation of the male were of not more than one-half hour's duration. You will remember that the forces applied in the case of the female were much greater than the forces applied in the case of the male. You will also remember in the case of the female, that the bone seemed to be replaced, that it seemed to go out of place, that reduction and dislocation seemed to alternate each other, that crepitus was felt from time to time, that there was great contusion over the acromion caused by the foot, that blood began to be extravasated about the shoulder and in the axilla, that the patient began to show signs of collapse, the shock being very marked, and that it was considered prudent to desist from further effort at reduction, and that there was then felt and heard a distinct thrill in the axillary artery:—the artery being doubtless more or less contused and lacerated. I was thinking of the two fatal cases of Prof. Gibson and the fatal case of M. Leudet—the latter of only eleven days standing:—also I made some remarks on other fatal cases in the hands of the most skilful surgeons. I told you of the great perils that sometimes stood in the way of reduction of dislocations of the humerus. In fact, I pointed out to you, that it would be better practice to leave your patient, after reasonable efforts at reduction, with a deformed and impaired limb, that might be of some use, than to pull the limb from the body, as has actually occurred, or than to actually destroy your patient by prolonged and severe attempts to accomplish an impossibility. In such a case as this the first imperative question is the life and safety of the patient. The second question is important and consists in giving the patient the best and most useful limb under the circumstances. It is very desirable to see a surgeon stand immovably on these great principles—which will protect him against all assaults.

This patient has had careful and persistent passive motion:—I began passive motion about three days after the incomplete reduction. The case became an out-patient in a few days,—one of my assistants continuing passive motion. The case has progressed favorably, the greater tuberosity coming more and more under the acromion, showing that either the fragment of the lip of the glenoid cavity has been pushed out of the way of the head of the humerus, or the lip itself has begun to be absorbed. The thrill in the axillary artery ceased soon after the attempts at reduction,—say, in a day or two. And the prospects are



good for this woman having a useful upper limb. I think we may congratulate ourselves in not having added one to the already considerable list of fatal cases following attempts at reducing certain kinds of dislocation of the humerus.

CASE V.—Mrs. —, born in Ireland, about 45 years of age, is brought before you to-day, June 25th, 1878, having a sub-clavicular dislocation of the right humerus, of two week's standing, it having been unrecognized at the time. Gentlemen, permit me to give you some advice in regard to cases of dislocation of the humerus, that for some cause you can not make out. Unless you are absolutely certain that there is no dislocation, you may proceed as if there was a dislocation: give the patient ether, and go through carefully all the proper steps for reduction, because this may confirm or complete your diagnosis, and because, if there is a dislocation, you will be sure to reduce it. I consider this practice eminently safe, conservative, and wise. Follow it prudently, and it will from many a blunder free you. Always remember that the longer the delay the more difficult is the reduction of a dislocation of the humerus. My observation teaches me that a sub-coracoid dislocation may become a sub-clavicular dislocation, and thus increase the practical difficulties.

Let me now give this feeble patient ether. See how quietly she comes under its influence. Ether is very safe for such patients. I will now circumduct, rotate, abduct, adduct, and move in every direction this dislocated humerus, and as I do so, I can feel the adhesions "giving way." I now remove my boot, and my clinical assistant, Dr. Atkinson, removes his boot: The stockinged foot is used for counter extension. I now put a towel around the inside of the upper part of the arm, and take hold of the ends with my hands, and put my foot on the acromion, while an assistant holds my foot so that it will not slip. My clinical assistant puts a small pillow in the axilla, takes hold of the condyloid end of the arm, semi-flexing the fore-arm to relax the biceps, out-rotates the arm, and makes traction, downward, outward, and somewhat backward. At the same time I pull directly outward from the body and somewhat backward and the bone slips into place. As we desist from traction, the bone seems to go somewhat out of place again. As we renew the traction, and continue it for a few moments, the bone seems to keep its place more perfectly, on our finally desisting from traction. We will now put the patient's fore-arm in a sling and watch the progress of the case, which will no doubt be favorable.

Finally, you will meet such cases as these in your practice after you leave this place. And when you have done your whole duty according to the best of your ability, you may then count on me to stand by you in the hour of professional need. Do not multiply words,—but multiply deeds, always being at your post of duty, as your health and strength will permit, which is one of the important lessons I have tried to teach you.



## ORIGINAL ARTICLES.

## NOTES ON JABORANDI AND PILOCARPINE.

BY

PAUL H. KRETZSCHMAR, M.D., of Brooklyn.

Since the publication of my notes on "Jaborandi and its Active Principle, Pilocarpine," in No. 38, June 20th, 1878), of THE HOSPITAL GAZETTE, I have had the opportunity to observe the action of jaborandi in several very interesting cases, and I present them to-day, together with some additional remarks—taken from German periodicals—to the profession.

*Case I.*—About the middle of July I was called to attend a woman, supposed to be in the 8th or 9th month of pregnancy and greatly suffering from "swelling of the legs." Patient was 21 years of age, primipara, married ten months. I found the lower limbs considerably œdematous, face and hands slightly so. The urine contained a large amount of albumen, hyaline casts were present in small quantity; the diagnosis was made: parenchymatous nephritis with rather a doubtful prognosis. I prescribed:  $\frac{1}{2}$  drachm of fld. extr. of pilocarpus pinnatus, with an equal quantity of simple syrup to be repeated every three hours. About 24 hours after I had seen the patient for the first time, and shortly after she had taken the third dose of the medicine, I was called again and found the patient sweating nicely, slightly nauseated and ——— *labor commencing*. She was delivered about six hours later of a living male child of small size, apparently eight months old, without any difficulty. The use of jaborandi was continued, together with laxatives and counter-irritation over the region of the kidneys, the œdema gradually disappeared, and the urine became of normal character about three weeks after confinement. The question arose in my mind:—*Did the use of jaborandi cause the premature delivery?* Since that time I have had an opportunity to see a statement made by Dr. F. Massmann, Centralblatt f. Gynaekol 78, No. 9 saying, that in cases of pregnant women suffering from œdema *he had seen several times premature delivery following the hypodermic injection of  $\frac{1}{3}$  gr. of pilocarpine*. Dr. F. Schauta, of Vienna, Wiener Med. Wochenschrift, No. 19, states, that he has employed pilocarpine just for the purpose of producing premature delivery, and that a few hours after the injection of the second dose of  $\frac{1}{3}$  gr. pilocarpine labor commenced, and 16 hours later a living child was born.

Taking these testimonies as they are presented by different observers, it seems very advisable to *use great caution in employing the preparations of jaborandi during the later months of pregnancy*.

*Case II.*—P. McC.—Ire.—Aet. 42. I saw the patient for the first time June 24th, and found him suffering from pleurisy, the left side of his chest being full of fluid, the area of flatness extending up to apex of the lung. The general condition seemed to be good, there were no signs of empyema, but the large quantity of fluid contained in one side of his chest, greatly interfered with his breathing—dyspnoea was well marked. *Paracentesis thoracis or jaborandi?* This.

was the question which presented itself to my mind; I decided in favor of the latter, with the view to resort to the former if necessary. The fluid extract was employed in  $\frac{1}{2}$  drachm doses every two hours, with  $\frac{3}{4}$  ss. doses of spts. frumenti, given shortly after the administration of the medicine. The diaphoretic action of the preparation used, was as good as I have ever seen it, all the clothes about the patient were literally drenched. The patient took during a treatment extending over two weeks, one and a half ounces of the fluid extract. The quantity of fluid within the chest gradually diminished with the beginning of the treatment, and the dyspnœa was greatly relieved after the second day. The third half ounce of the fluid extract—although of the same kind—failed to produce such marked diaphoresis as followed the administration of the first and second half ounces. The treatment of this case was managed in the following way :

*June 26th.*— $\frac{3}{4}$  ss. fld. extr. jaborandi; followed by

$\frac{3}{4}$  ss. spts. frumenti given at

8 A. M., 10 A. M., 12 M., 2 P. M., 4 and 6 P. M.

*June 27th.*—8 A. M., 10 A. M.

*June 27th to July 1st.*—Hydrochlorate of quinia in tonic doses.

*July 2d and July 3d.*—Jaborandi and whiskey, given the same way) as before, and again followed by tonic doses of quinia.

*July 7th and July 8th.*—Jaborandi and whiskey, given for the last time.

*July 12th.*—Patient went to work again, with some fluid remaining in his chest.

*August 1st.*—Discharged cured.

*Case III.*—Mrs. S.—Ireland.—Aet. 60.

Saw her for the first time August 5th, found her suffering from general anasarca due to fatty degeneration of the heart; She stated that she had been sick for over ten years. Patient was very stout; dyspnœa marked; examination of urine negative; prognosis made, unfavorable. To relieve the dropsy temporarily, I concluded to try jaborandi. August 10th she took 4 teaspoonfuls of the following mixture :

R. Extr. jaborandi fld.

Syr. simplicis aa.  $\frac{3}{4}$  ss.

M. S.  $\frac{3}{4}$  j. every 2 hours,

and August 11th, she took two doses more.

*In this case the remedy for the first time, utterly failed to produce its physiological action.*

The saliva was secreted in somewhat larger quantity than normally, but diaphoresis was absent; vomiting occurred three or four times, and notwithstanding the liberal use of alcoholic stimulants, the patient was in an extremely weak condition for some time after the administration of the jaborandi. Patient died ten days afterwards.

Prof. R. Demme, of Bern, Switzerland) and Dr. Zielewicz, of Posen, (Prussia) have published very interesting and valuable observations on the use of muriate of pilocarpine—commonly known as pilocarpine—in diseases of children. (Centralblatt f. Kinderheilkunde No 1 and No. 14).

Demme reports 33 cases treated by the hypodermic use of pilocarpine (Mercks), 23 of which were cases of desquamative parenchymatous nephritis; 18 of them following scarlatina, one of them occurring in a child female nine months old, and 3 following diphtheria. He used the following doses :

$\frac{1}{12}$  gr. under 2 years of age.

$\frac{1}{8}$  to  $\frac{1}{4}$  gr. between 2 and 6 years.

$\frac{1}{4}$  to  $\frac{1}{3}$  gr. to older children.

In the majority of cases he gave but one injection during 24 hours, but in severe cases two, three, and in one instance even four injections during that time. In 31 cases out of the 33 reported, Demme did *not observe any unpleasant symptoms after the use of the pilocarpine*. In those two cases where unpleasant symptoms (vomiting, fainting, singultus) occurred, there was a remarkable absence of the diaphoretic and of the sialogogue action of the remedy. A small quantity of the brandy (M xx to ʒ j.) administered shortly before the use of the pilocarpine almost prevented the unpleasant symptoms mentioned, in one of the two cases. About *the therapeutic value of pilocarpine* Prot. Demme expresses himself in the following way : The remedy had undoubtedly a most favorable influence on those children suffering from scarlatina—nephritis with dropsy.

*In regard to certainty and quickness of action, it is superior to all the different methods which are now employed to produce diaphoresis.* In two cases of anuria with severe uræmic symptoms, improvement commenced after the injection of the first dose of  $\frac{1}{6}$  gr.; the injections were repeated several times daily, and *these injections proved to be life-saving.*"

Only two out of 18 cases of scarlatinal-nephritis died, all the others and those three cases which occurred after diphtheria recovered. Finally, Demme arrives at the following conclusions :

I. Pilocarpine proves to be a very valuable diaphoretic and sialogogue in the treatment of diseases of children.

II. In proper doses it is well borne even in the earliest ages of infancy. Among the youngest children its sialogogue effect, among older ones its diaphoretic effect is predominant.

III. Unpleasant complications—following its administration—were but exceptionally observed even among infants. The administration of small doses of brandy before the injection does probably prevent the occurrence of them to a large extent.

IV. The most important field for the use of pilocarpine in the practice among sick children, is in cases of desquamative parenchymatous nephritis, with dropsy following scarlatina, diphtheria, etc. Diuresis is produced in a majority of cases. The amount of albumen and of blood discharged with the urine is not increased, probably diminished.

V. An influence of pilocarpine on the heart's action has not been observed.

Dr. Zielewicz hospital for sick children in Posen, publishes his observations based on 23 cases with 89 injections, occurring in children between the ages of two and thirteen years. In 19 instances



the little patients suffered from dropsy due to disturbances of circulation through the kidneys, following scarlatina, diphtheria and malarial cachexia. Dr. Zielewicz is not quite as enthusiastic as others about the therapeutic value of pilocarpine. He claims that  $\frac{1}{6}$  gr. is too large a dose for children under 6 years of age and employs only  $\frac{1}{12}$  to  $\frac{1}{8}$  gr. in such cases. Z. observed in several cases marked diuresis and diarrhœa, vomiting, and in one instance collapse following the hypodermic injection of pilocarpine. As he makes the statement that in the one case in which  $\frac{1}{6}$  gr. produced collapse (ending, however, in recovery) the child vomited severely seven times during one hour, the question seems to be very pertinent, whether the collapse should be regarded as being primarily due to the action of the remedy.

An important physiological effect of pilocarpine—according to Zielewicz—is its power to reduce animal heat. He has observed a decrease of temperature amounting to as much as 2,  $2\frac{1}{2}$  and even 3 degrees, averaging, however, 1 to  $1\frac{1}{2}$  degrees. In very few instances there was a slight increase of the temperature. Again it seems doubtful to me whether the diminution of the temperature can be attributed primarily to the action of pilocarpine, or whether it is not due, and only temporarily caused by, the evaporation of the perspiration. Zielewicz arrives at the following conclusion:

I. Pilocarpine is a reliable diaphoretic in the diseases of children.

II. The unpleasant symptoms which occasionally follow the administration of this remedy, interfere with its more general use.

III. To eliminate or diminish these complications, the following rules should be observed:

a. The dose of pilocarpine should be as small as possible.

b. A small amount of morphia should be administered with the pilocarpine—best in the proportion of

10 pts. hydrochlorate of pilocarpine to  
1 pt. hydrochlorate of morphia.

c. To prevent collapse, a few drops of camphorated oil should be added to the solution.

## HOSPITAL RECORDS.

### ST. CATHERINE HOSPITAL, BROOKLYN, N. Y.

Reported by JOHN F. VALENTINE, M.D., House Surgeon.

#### FECAL ABDOMINAL FISTULA, FOLLOWING A PERFORATION OF AN ULCER AFTER ENTERO-COLITIS.

H. R.—Age 18 yrs.—U. S.—S.—Pedlar.

*Past History.*—Has been suffering for two weeks with a severe diarrhœa. The night before he was taken sick he attended a wedding and drank a great deal, the following morning he with some

other friends, drank what remained in a keg of stale beer, the next night he was taken with severe cramps followed by diarrhœa.

*On Admission.*—*May 6th*, 1878.—He had from 8 to 10 passages a day.

*May 9th*, '78.—Passages reduced 3 or 4 a day. Pulse 120; temp. 101.

*May 11th*, '78.—Abdomen swollen and tympanitic.

*May 13th*, '78.—Has a protrusion at the umbilicus which is very painful; reduced the tumor and applied adhesive strips to retain it.

*May 20th*, '78.—Has a great deal of pain at a point just below the umbilicus; it protrudes a little, ordered linseed poultices.

*May 23rd*, '78.—About 3 A. M. this tumor opened and discharged a great deal of offensive material.

*May 24th*, '78.—The discharge is fecal. Gave, to test this, cochineal and brandy at 2 P. M.

Has a little peritonitis. Temp 100° most of the time. Pulse very small and quick.

*May 25th*, '78.—This 4 A. M. the mixture was seen coming from the opening; he is emaciating very fast.

*June 6th*, '78.—Patient very weak; feces still pass through the opening and also by the natural passages.

*June 7th*, '78.—Died about 6 A. M. to-day.

*Autopsy.*—28 hours after death.

*Body.*—Emaciated very much; rigor mortis very slight.

*Abdomen.*—Discolored, of a bluish hue.

Fistula located below the umbilicus, with a dry and dark crust covering it.

*On opening Abdomen.*—Intestines bound to each other and to the walls of the abdomen by quite firm adhesions. The incision was extended to the right iliac fossa, the latter was found to contain fecal matter. Probe passed through the fistula, entered the peritoneal cavity near the right iliac fossa, after passing through a sinus composed of inflammatory products into which 2 fingers could be readily passed, this was found to communicate, by 2 large openings with thickened and everted edges, through which one or two fingers could be passed with the cæcum, through which fecal matter would pass when pressure was made near the right iliac fossa.

On opening the *ileum*, *cæcum* and *colon*, ulcers of various sizes and in all stages, from simple infiltration to perforation, were seen.

*Liver.*—Enlarged and in a state of fatty degeneration. Capsule very thin and easily torn off; the under surface of left lobe, near anterior border, contained a large abscess, which was lying in contact with the fecal cul de sac.

*Spleen.*—Slightly enlarged.

*Kidneys.*—Enlarged, white, and in a state of fatty degeneration.

PERISCOPE.

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## ABLATION OF THE TONGUE.

Of complete removal of the tongue for malignant disease, an operation frequently performed of late both by my colleagues and myself, and rendered peculiarly easy by the use of the wire *écraseur*, I fear I cannot speak in terms of as high commendation, or with the promise of results as favorable, as we, at one time, hoped to achieve. That great relief may be afforded to a patient by the operation for a time at least, I am quite prepared to admit; but the final result in such cases as have passed under my observation, has unquestionably greatly disappointed me. Early return, either in the tongue itself, or if that has been completely removed, in the glands near, has so far been the invariable result; and, on the whole, the final condition of the sufferer has been such as to be far from encouraging. Nevertheless, there are cases in which even temporary relief afforded by the operation has been such as, in my judgment, would justify its performance, provided too, great hope be not entertained as to the ultimate curative effect. Of the operation of subcutaneous division of the gustatory nerve—performed and highly spoken of by the late Mr. C. H. Moore, I have no experience, and can therefore offer no opinion.—C. G. WHEELHOUSE in *Brit. Med. Journal*.

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## REUNION AND RESTORATION OF DIVIDED NERVES.

Neither, so far as the limbs are concerned, do the muscles, the bones, or the joints mark the limit of our recent surgical acquisitions. In the *Lancet* of June 1st, of the present year, a series of experiments are recorded as in progress in Germany, the object of which is to ascertain whether the nerves, like other structures, are not amenable to surgical treatment for their restoration after division and complete loss of function; but, whilst the Germans are patiently experimenting to determine the point, it is my good fortune to be able to answer this question distinctly in the affirmative, as the following case will show.

On May 5th, 1875, a patient named Adam Smith, a laborer, aged 22, entered the Infirmary at Leeds, under my care. He limped into the ward on crutches, his left lower limb being completely paralyzed and useless, and stated that he had come to request us to remove it, as an incumbrance. The story he told me concerning it was this. Nine months previously, as he was returning home one evening, at the close of his day's labor, carrying his scythe over his shoulder, being anxious to make a short cut to his cottage, he attempted to climb over a fence; in doing this, the point of his scythe caught in the hedge behind him; he was jerked suddenly backwards, and fell with the back of his thigh upon the sharp edge of his implement. The result of this was a ghastly wound, the contracted cicatrix of which measured nine inches in length when I first saw it, nine months afterwards. He lay, bleeding profusely, where he fell, for many hours, be-



fore he was found and carried home; there the hæmorrhage was staunched, the wound was dressed, and, in process of time, it slowly healed; but he noticed, during the whole time so occupied, that the limb was slowly wasting and withering away, and that it manifested no sign whatever of any returning sensibility.

Eventually, when he was able to leave his bed, he found to his horror that, although the wound was healed, and the limb was apparently saved, it had become wholly useless to him. So far as the distribution of the sciatic nerve was concerned, the power of sensation was entirely lost; of voluntary muscular power he had none, and the joints were relaxed and flaccid.

I need not detail to you all the efforts, vain efforts indeed, that he made to recover the lost powers of the limb; suffice it to say that, receiving no benefit from any thing he did or tried, he finally came to the hospital to ask for its removal.

The whole cause of the mischief was, of course, clear at a glance. The sciatic nerve had been divided, and in the healing of the wound, the separated ends had never reunited. Here, if ever, was a fair opportunity to test the question, Are nerves which have been divided, and have for long remained disunited, capable of restoration?

I called my colleagues to my assistance in forming an opinion on the matter. Dr. Clifford Allbutt was good enough most patiently and carefully to test electrically the condition of disused and wasted muscles, and he reported that, though not wholly destroyed, their irritability was well-nigh exhausted. My surgical colleagues agreed with me that whereas, should the attempt to restore the lost nerve-power altogether fail, I could still, as a last resource, remove the limb, I should be justified in making an attempt to reunite the ends of the divided nerve. After fully explaining to the patient the position of affairs, and obtaining his assent, I determined to do so.

Having laid open the back of the thigh, and, by a careful and deliberate dissection of the parts, exposed the wounded nerve, I found it completely cut across; the two ends were firmly felted in cicatricial tissue two inches apart. On the upper one was a large bulbous swelling; the lower appeared atrophied and somewhat wasted; both were carefully loosened and detached; the bulb was removed from the upper one, and each was then pared obliquely until apparently fresh nerve tissue was exposed. When I then attempted to bring them together, the nerve was found to be so much shortened that I could not do so until I flexed the knee fully. This enabled me to make the ends of the nerve meet without strain; they were then carefully stitched together with very fine carbolized catgut thread, the wound was closed, the ankle was firmly lashed to the buttock, and in this position the patient was put to bed.

I will not weary you with details. Suffice it to say that little by little, and in very wandering fashion, day by day, and week after week, sensation was found to be returning to the limb. At the end of five weeks I began slowly to relax the position and let down the leg inch by inch, until at length it became straight again, and then, to my intense satisfaction, I found that the restored sensibility remained.

By very slow degrees the power of voluntary motion also returned, and on August 7th, he was discharged from the hospital so far cured that, with the help of two sticks, he was able to support himself on the limb and could walk. From that time to this he has gone on improving. During the whole of the past winter, he has worked in the fields as he was wont to do before his accident, requiring neither stick nor support, nor help of any kind; and, though the limb remains greatly inferior in size and nutrition to the opposite one, it is, to all intents and purposes, a useful member again.

Since the performance of that operation, my colleague, Mr. Atkinson, has in similar manner successfully reunited a divided median, and Mr. Jessop has reminded me that, long prior to my case, he also had been equally happy in thus dealing with an ulnar nerve.—C. G. WHEELHOUSE in *Brit. Med. Journal*.

## TRANSACTIONS OF THE SEVENTH CONGRESS OF THE SOCIETY OF GERMAN SURGEONS.—CONTINUED.

Translated and Abstracted

BY

C. SHOENEMANN, M.D., OF NEW YORK.

### BRAUNE (LEIPZIG) ON DISLOCATION OF THE BLADDER IN SIMONS RECTAL PALPATION.

After the introduction of an India rubber bladder, blown up to the size of a man's fist, in the rectum, B. got the conditions of Simons manipulation. On section of the frozen cadaver he found the peritoneum extending to the pelvic inlet, the orificium urethræ int. to the upper margin of the symphysis, and under strong expansion especially of the prostatic portion of the urethra, and flattening of the prostrate, which was forced upwards.

### KÖNIG (GÖTTINGEN) ON RISING OF TEMPERATURE IN FUNGOID IN- FLAMMATION OF THE JOINTS.

After close observations for many years, K. found that there are abscesses which never cause any fever, but as soon as pus began to form in a chronic inflammation of a joint he noticed a rise of temp. This pus might, especially in young individuals, become reabsorbed, but in general it is a dangerous case and always an indication for an immediate resection.

Schede on the other hand, does not think the rise of temp. in fungoid inflammation of joints important, because he noticed fever in cases where no pus has been found by puncture of the joint and where the rise of temp. was caused by a central inflammatory process in the epiphysis. Lücke disputes the value of such a puncture, because the suppuration might be restricted to a small recess and the other part of the joint contained synovia. Besides this it would require a very thick trocar to evacuate thick flocculent pus.

Hueter sustains K.'s observations, he found sometimes abscesses arise under plaster-of-Paris dressing, without any fever.

## VON LANGENBECK ON KYPHOSIS DORSALIS.

L. showed a patient with Pott's disease; a very bad case.

Taylor's brace had been applied in the first place with good results, but without any relief later.

L. applied a gypsum corset and is contented with it. The patient can wear it for 18 months, and L. recommends it especially for dispensary practice. The immobility of the spinal column is complete, certainly the respiratory movements somewhat confined. When the corset is to be applied the patient is to be suspended, so that the toes do not touch the ground; in such posture, under profound narcosis, the spinal column becomes naturally compensated. L. pads very accurately with cotton wadding, uses flannel rollers, and over these the gypsum bandage. In caries of the cervical vertebræ he uses the well-known jury mast, and recommends urgently to make the diseased part immovable as early as possible. L. refers to the danger of decubitus, which often is caused by the loosening plaster, but emphasizes, that by the gypsum bandage the spinal column at once becomes improved, and the patient can walk about.

Upon discussion, Dr. Hahn mentions the great results which he obtained by extension in the recumbent posture. He uses a chin-piece, with support of the proc. mastoid, and increases the time of extension every day. L. emphasizes that only a few surgeons hesitate against extension. He himself used to give warnings against the sudden extension in Glisson's suspension.

Hueter asks if the ribs do not become immovable and the respiration abdominal.

Scheele had also brilliant results from extension; he also recommends the gypsum corset or Rauchfuss suspension where the former cannot be applied.

[Allow me to make a few remarks on this subject, as there has been lately a great discussion about it, and a great many wrong ideas have been formed in regard to the plaster-of-Paris corset, preferring this in every respect to Taylor's and others' brace, and calling the latter harmful and useless. I don't wish to enter into details at present about the preference or disadvantages of one or the other. I only wish to state that certain views of Taylor's brace are totally wrong. So Prof. Sayre says. Meetings of the Surgical Section of the Academy and County Medical Society.]

1. The pressure of Taylor's brace is made directly on the diseased part.

2. The shoulder-pieces press on shoulder and clavicle, preventing children from growing.

3. Taylor's braces cause almost always excoriations.

Besides, Sayre condemns their weight and calls *the whole thing* a torture and cruelty. The distinguished professor of Orthopedic Surgery is entirely mistaken.

1. The diseased part is the body of the vertebra and there is a roomy space between the body of the vertebra and the place of pressure.



2. No shoulder-piece is intended to make any pressure on shoulder, clavicle, on head noose or toes; if it does it proves that the surgeon who has applied it, does not understand the principle of the instrument.

3. If properly adjusted and kept in good order, not the slightest excoriation will show. I know one case where a child, being entirely paralyzed, rested already one year upon Taylor's brace, without having any excoriation.

The whole thing is not more of a torture or cruelty than a plaster-of-Paris jacket.—A. SHOENEMANN.]

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HUETER GREIFSWALDE ON SCROFULOUS AND TUBERCULAR INFLAMMATION OF JOINTS.

H. opposes the old theory, that a great difference exists between scrofulosis and tuberculosis and that the latter may be local and may remain local. In contrast with this old theory, which is only based on experiments with animals, stand H's clinical observations and experiments. H. affirms that not so very seldom scrofulosis goes over into tuberculosis, and that tuberculosis being in the beginning only local soon becomes a general infection. He experimented on rabbits and injected under the cornea some tubercular matter, taken from the synovial membrane of a patient, on whom a resection for tumor alb. genu had been performed, and who had bronchitis besides. After the keratitis and tubercle disappeared in the anterior chamber of the eye, it took 51 days until general tuberculosis developed. More positive results he obtained after repeating the experiments, taking the cheesy matter from a scrofulous fistula. It took here only 30 days until numerous tubercles made their appearance, not only on the iris of both eyes, but also in the lungs. H. therefore considers the prognosis of the so-called local tuberculosis always bad; scrofulosis has a more general character. It is a clinical fact, that scrofulous ulcerations or abscesses, notwithstanding the good appearance after surgical interference, soon fall back to the old condition.

Czerny mentioned a case, where after the opening of a cold abscess above Pouparts ligament the peritoneum was cut accidentally and the prolapsing coecum came in contact with the contents of the abscess. The wound being dressed, no peritonitis set in, but the patient died suddenly, after 8 weeks, having tremor and symptoms of mania. Autopsy—local peritonitis, miliary-tubercles in the omentum and meninges.

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PROF. BUSCH (BERLIN) ON OSTEITIS AND NECROSIS.

In the course of the last year B. succeeded in producing the same inflammation of bone and necrosis by chemical influence, as by the use of the galvano-cautery or laminaria-tent.

The application of a chemical substance into the marrow of bone requires certain precautions. If injected into the marrow, one part of the injected fluid enters the vessels of the Haversian canals and in this way the general circulation. He made this experience already

in 1865, when he succeeded in conveying large quantities of olive oil into the general circulation by injecting the oil into the marrow, once it resulted in complete obstruction of the capillaries of the lung and immediate suffocation of the animal.

Lately Dr. Riedel made similar experiments, and found after an injection of nitric acid into the marrow its caustic effect on the vessels of the lung and heart, proving the transgression of the acid into the general circulation.

Busch avoided this inconvenience in the following way:

He drilled a straight hole through the tibia from both sides of the bone and destroyed the marrow with a strong wire. He then took a thin iron wire, attached to one end some cotton thread about  $\frac{1}{2}$  in. long, soaked the cotton with the chemical fluid, and drew it slowly through the openings made.

He experimented with *ol. crotonis*, *ol. sinapis æth.* and *liqu. ferri sesquichl.* and made no use of Lister's dressing. He also introduced in said way septic matter into the marrow.

In one case, where, after finishing the experiment the holes were left open, he found a very slight reaction; but eight days later by experimenting in the same manner on the tibia of the other leg, where the openings were closed with wooden plugs, acute pyæmia set in, killing the dog after six days.

This result shows how important it is to secure a free drainage in putrid processes of the marrow.

It 1876, Ollier, advised in a report to the French Academy to lay open the marrow in cases of acute osteomyelitis.

B. promises to accomplish these results by further experiments.

#### DR. WIGNER (BERLIN) ON THE EXTIRPATION OF THE LARYNX ON ACCOUNT OF CARCINOMA.

Patient, female, 52 years old, had a carcinoma of the right ventriculus Morgagni of the size of a walnut, extending above the median line and causing a dangerous dyspnœa.

Operation for complete extirpation of larynx with epiglottis was performed on Sept. 16, '77.

Patient is very healthy to-day, April 15, '78, and has no sign of any relapse.

For a length of time she has worn Gussenbauers artificial larynx, with which she could speak very distinctly, but this apparatus is applicable only for a short time, because, in consequence of the deficient closure, particles of food and mucus enter the larynx and prevent the play of the metal tongue; very likely in consequence of the removal of the epiglottis. Author, therefore, recommends not to extirpate the epiglottis, whenever possible.

#### 2. OBITERATION OF THE LARYNX AND COMPLETE DESTRUCTION OF THE VOCAL CORDS.—IMPROVEMENT OF SPEECH.

Patient, female, 11 years old, affected with diphtheritis 7

years ago, which caused a cicatricial closure of the larynx with a complete destruction of the vocal cords.

When she entered the hospital she wore a tracheal canula, and had complete aphonia.

By thyrotomy and the subsequent use of bougies, W. restored the laryngeal passage and applied a modification of Gussenbauers artificial larynx, which enabled her to speak easily and distinctly.

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PROF. CZERNY (HEIDELBERG) ON LAPAROTOMY AFTER LISTER'S  
ANTISEPTIC METHOD.

Author reports 10 cases of laparotomy, 4 of which, notwithstanding the strict use of Lister's antiseptic method, did not take an aseptic course.

Out of six operations of ovariectomy, one patient died of septic peritonitis in consequence of gangrene of the ligated portion of the stump, which was left in the abdominal cavity. For ligatures he used silk, boiled in carbolic acid, which in the other 5 cases, where the stump also had been left in the peritoneal cavity without securing a free drainage, answered the purpose very well, and became absorbed just as well as catgut.

The evacuation of the peritoneal exudation and washing of the peritoneal cavity with a disinfectant brought but very little improvement, and had not the influence to prevent death.

In two cases of supravaginal hysterectomy for uterine myoma, where the stump had been fixed in the wound of the abdomen; in one case of a slow peritonitis with adhesions, which in consequence of a wrong diagnosis, had been operated upon, and where a thorough drainage had been kept up, and in a fourth case after an unavailing trial of extirpation of a tumor near the division of the aorta into the two common iliac arteries, the author failed in attaining an aseptic course of the disease, although no case proved fatal.

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DR. V. ADELMANN (BERLIN) ON COMPLETE EXTIRPATION OF  
SCAPULA.

v. A. reports on complete extirpation of the scapula (there being now 61 cases on record).

He lays stress upon the pleasing indications, that this operation in former times so greatly dreaded, has been performed frequently, and with good results during the last twenty years.

He concludes that the operation by this time has secured a self-sustained and permanent reputation in surgery.

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DR. PASSAVANT (FRANKFORT) ON IMPROVEMENT OF SPEECH AFTER  
URANOPLASTY.

P. recommends a new procedure for effectual removal of the great inconvenience, which even after the best performed operation remains i. e. the speech through the nose.



He considers this operation better than Schwenborn's who also attained a great improvement by transplanting a pharyngeal flap in the deficient palate.

Formerly P. united the muscoli pharyngo-palatini in order to get a better separation of the pharyngeal from the nasal cavity, this proved to be but a slight success; later on he united and with better success, the free margin of the soft palate with the posterior mucous membrane of the pharynx, but at present he operates in a more simple way, that is to say, he only separates the soft from the hard palate, and closes the remaining deficiency of the palate by an obturator. By this method he enabled a young girl to take a position as a companion and reader.

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### NEWS ITEMS AND NOTES.

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**Mr. Croft**, of St. Thomas's Hospital, has been appointed Examiner in Surgery at the Royal College of Physicians, London.

**The Heart's Work.**—Dr. Guyol, of Paris, after careful calculation, estimates that during sixty years of life the heart pulsates 2,269,800,000; during a life of eighty years, 3,007,040,000; in one hundred years, there are 3,792,550,000 pulsations.—*The Doctor*.

**Shot, Anti-Furuncular.**—In the West and Northwest, shot ten or twelve before breakfast each morning, are very commonly used to cure existing boils and stave off a crop of the same when expected. Those who use it, claim that seven or eight days of this treatment is sufficient to break up a severe attack of furunculosis. It may be of interest to know that shot-metal is not pure lead, but 3 parts of arsenic to 1000 parts of lead. If the lead be coarse, 6 or 8 parts of metallic arsenic are required to make the metal.

**Cruelty to the Human Animal.**—Women sometimes show a degree of cruelty towards their children that they would not towards a pet dog. It most often arises from thoughtlessness, and possibly force of custom. A child was brought to Dr. J. C. Davis, at the North Eastern Dispensary last month, whose ulna had been fractured by its mother in lifting it across the gutter by the arm. This practice of lifting children by the arm is common amongst nurses and mothers, and is often productive of serious mischief, though rarely so severe as in this instance.

**Antidote to Carbolic Acid.**—The *Pharmaceutische Zeitung für Russland* says that on the recommendation of Prof. Baumann, Dr. Sanftleben has used sulphuric acid with the best success, the phenol combining with the acid to form phenyl-sulphuric acid, which is not poisonous. He administered it in a mixture composed of diluted sulphuric acid 10.0, mucilage of gum 200.0, and simple syrup 30.0 grammes, in doses of a tablespoonful every hour.

**Transmission of Syphilis by Tattooing.**—Under the title "An unsuspected means of syphilitic inoculation," the *Lyon Medicale* tells us that a vagabond has been arrested in Pennsylvania who has given syphilis to a great number of artisans. His trade consisted in tattooing, and as his needles required to be moistened from time to time, he wet them with his saliva, his mouth being at the time full of specific ulcerations. The data in connection with this case are unfortunately insufficient, and though of great interest, have received no scientific interpretation. The subject has, however, been fully dealt with in a communication addressed to the *Progrès Medical*, in which some new facts as to the etiology, the incubation, and cicatrization of extragenital syphilitic sores are given.—*Med. Press.*

**The Army Medical Museum.**—A few lines of collections have been undertaken by this admirably conducted department. The editor of *Harper's Magazine* for June, states that materials are being collected from every source for the illustration of the craniology and osteology of man; and not less than 2,000 specimens are now on exhibition. Their number will be constantly increased, by exchange and otherwise. When it is added that Dr. Otis, U. S. A., has charge of this undertaking, no one will doubt concerning its vigorous growth, and that the profession will presently reap the benefit of it. It will grow apace. It was Scott, we believe, who once said, "Aye, Jamie, plant a tree, it will be growing whilst you're sleeping." They plant fruit trees at the museum, if nowhere else, in Washington.—*Pro. of Med. Soc., Co. of Kings.*

**Prevention of Puerperal Fever.**—The sanitary authorities of the Tyrol have adopted regulations requiring the use of carbolic solution on all instruments, sponges, etc., which have been employed in the delivery of any woman, whether normal or otherwise. Before examining a patient, the midwife must use the disinfectant on her hands. In order that this may always be forthcoming, every midwife must, under penalty, take with her a five per cent. solution of carbolic acid. When required for use, one part of this solution is to be mixed with four parts of water.—*Med. Examiner, April 25th.*

**Hysteria.**—The late Dr. Peaslee held the view that this disorder is always ovarian, rather than uterine, in its causation, when any one organ was responsible for it; and congestion of ovaries is much more frequently attended by hysteria than inflammation of those organs.

Grave forms of hysteria are, according to M. Charcot, only amenable to treatment in seclusion from the family, in some private or hydropathic establishment. The patient must be douched several times a day; if cross, noisy and unruly, the circle-douche should be used. The only persons to be seen by the patient are the physician and the unsympathetic attendants; the parents are allowed to see their daughter once in two or three weeks, and then only if she has been well-behaved. Under this regimen she by degrees grows quiet and begins to eat. No drugs are employed, the treatment is external; it is half addressed to the morale and half to the physique. Every single case thus disciplined has resulted in a cure.—*Charcot's Lecture in Lancet.*



**New Remedy.**—It seems as though Australia is to give us another valuable medicine besides that derived from the eucalyptus tree. The leaves of the so-called cork wood *duboisia myoporoides* yield a powerful extract similar in its action to atropine and belladonna, but more speedy and energetic. In New South Wales and Queensland, where these properties have recently been developed by experimentation upon animals, the new drug is already considerably used in place of atropine.—*Pro. Med. Soc., Co. of Kings.*

**Dr. Baillée**, of France, finds no more effectual remedy in chloroform syncope than a piece of ice introduced into the rectum; so soon as the ice melts a deep inspiration follows, and the heart's action becomes reëstablished. Baillée recommends the same procedure in the apparent death of the newly born.—*Am. Med. Bi-Weekly.*

**Prevention of Fœticide.**—At the last meeting of the California State Medical Society, it was

*Resolved*, That the ministers of the gospel throughout the State be urgently requested to use all available and proper means to discourage the degrading and extensively prevalent crime of fœticide.

According to Humboldt, the Indians of Peru, by means of their scent, can perceive the approach of a stranger, while yet far distant. It is said that the Arabs can recognize the smell of a fire thirty or forty miles away.—*Jour. S., Ill. Med. Ass.*

**Further Uses of Marsupials.**—Tendon ligatures are now being generally used in surgery, and some have been prepared by Mr. Girdlestone one of the surgeons to the Albert Hospital, Melbourne, from the tendinous structures of the kangaroo. In England they have been prepared from the tendons of the horse. Tendon ligatures, like those made of catgut, dissolve, but more slowly; are tougher, make better knots, and do not slip. They make capital sutures. It is usual to soak them in carbolic water before use.—*Med. Press.*

**Hydrophobia.**—The observations of Gowers and Coats on hydrophobia, that the white blood-corpuscles travel through the walls of the blood-vessels freely, together with those of Binz, that quinine arrests such movements of white corpuscles, have led to the employment of quinine in large doses, together with bromide of potassium, in at least one case of hydrophobia, with the effect that while one of the persons bitten by the same dog has died, a second who was taken ill a few days later was put under this plan of treatment, with the effect, that seven days after active symptoms had set in he was not worse, but alive, and even somewhat better. It will not do for me here to allude further to what is being done by the commission to inquire into hydrophobia; but there are good grounds for believing that really valuable results will follow from the present careful examination into the maladies of animals, and those in man caused by animals.—*J. Milner Tothegill, in Phila. Med. Times.*



# THE HOSPITAL GAZETTE

AND

## ARCHIVES OF CLINICAL SURGERY.

A WEEKLY JOURNAL OF MEDICINE, SURGERY AND THE COLLATERAL SCIENCES.

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### LECTURES.

#### LECTURES ON INSANITY.

Delivered at the College of Physicians and Surgeons, New York.

BY

E. C. SEGUIN, M.D.

Clinical Professor of Diseases of the Mind and Nervous System.

(Reported For THE HOSPITAL GAZETTE.)

#### LECTURE V

EPILEPTIC INSANITY;—SIMPLE MORAL PERVERSION, MANIA OR MELANCHOLIA, EPILEPTIC VERTIGO OR TRANSITORY DELIRIUM, DEMENTIA.—PUERPERAL INSANITY—ALCOHOLIC INSANITY;—MANIA A POTU, CHRONIC ALCOHOLIC MANIA—SYPHILITIC INSANITY—MORAL INSANITY—DIPSOMANIA—KLEPTOMANIA—AGOROPHOBIA.

GENTLEMEN:—There are a number of clinical forms of insanity, of which I have as yet said nothing. These are:

Epileptic Insanity.

Puerperal “

Alcoholic “

Syphilitic “

Moral “

Dipsomania,

Kleptomania

and others.

*Epileptic insanity* may be one of the following forms:

(a) Simple moral perversion.

(b) Mania or melancholia.

(c) Epileptic vertigo or transitory delirium.

(d) Dementia, which is the terminal stage of many cases of epilepsy.

Hardly ever does an epileptic escape one or more of these conditions. I have observed in private practice some epileptic persons un-

dergo a most marked moral perversion without actual intellectual aberration. Sometimes they show disobedience, extreme obstinacy or persistence in a wrong course of action, and sometimes they are even led to commit cruel and destructive acts. A child, for example, may call his mother foul names, and strike her, or he will steal, or masturbate almost openly. The reasoning power is often unimpaired, so much so that if you see the patient by himself after having heard the stories of his wrong doings from his friends and relatives, you may be led to think him a much abused person. If, however, you sift the matter carefully, you get a true insight into the condition of affairs. Jealousy and envy are developed to an extraordinary degree in such cases.

Mania and melancholia when they come on in epileptics show their usual characteristics. The larger number of patients become manic; and melancholia, when it appears, generally takes an active form. The term epileptic mania is also applied by some writers to periodical or intermittent mania, in which after some months or years common epilepsy is noticed, but it is doubtful if this classification is correct.

Dementia may result from one of these conditions, but sometimes we see it develop gradually without having been preceded by moral insanity, mania, or melancholia. The symptoms of dementia seem to set in idiopathically, and relatives of the patient are apt to ascribe it to the bromide treatment, but such is not the fact. Bromide of potassium does sometimes produce similar symptoms, but we know that in some cases not treated with the bromides, the same condition may come on. Moreover, the dementia is not transitory, whereas the effects of the bromides pass off soon after the drug is stopped, and consist of more than mere dementia. We see in this commencing dementia the beginning of a constantly progressive deterioration.

Epileptic vertigo is a transient form of mania. Either before or after an attack the patient gets into a state of violence, and, though perfectly unaware of what he is doing, he destroys objects or severely injures or kills somebody.

There is a form of this disease in which the patient exhibits some ideational aberration instead of motor disturbances; this is called *psychical epilepsy*. I have exhibited patients to you in this clinic who have shown phenomena of this kind. I recollect one instance of a patient here, who, in one of his attacks, left Dr. McBride's examining room, hung up his coat in the hall, took out a piece of bread from his pocket, and walking down stairs commenced to eat it. When he had almost reached the door of the college, he came to himself. This attack was closely observed by Dr. McBride. On questioning, we found that this patient often did this, and was perfectly unconscious while doing it.

Trousseau relates an interesting case of a judge who while, on the bench with his associates, would suddenly leave, go into a handsomely furnished room adjoining, and urinate against a curtain. He would then adjust his dress, come back, and go on with the case, perfectly unconscious of the act. Under the head of transitory mania, I have given other examples.

By *puerperal insanity* is meant quite a large group of mental disturbances. The attack may occur either before confinement, in the puerperal state, or during lactation. As regards the form of insanity assumed, about one-half have mania, and the other half melancholia. The symptoms of these cases of mania and melancholia are in general like those of ordinary mania and melancholia, though in many cases the delirium is apt to run on sexual matters. We often see the most outrageous actions performed and the most obscene language used by the most highly respectable women, when in this state. Ladies who have been most highly educated and most carefully brought up, and who you might think had never heard bad language will burst out into the most frightful and obscene talk. We very often get impressions without reflection, and afterwards these impressions come out in the same way unconsciously or automatically. Theoretically we may conceive that the cerebrum is like an exceedingly sensitive photographic plate receiving impressions even without the will power being exerted. There are cases on record where persons have talked languages that they have never studied; in delirium we give utterance to things that we have not paid any attention to for years. So in these distressing cases of puerperal insanity, we may assure the family that the language is perfectly automatic and does not indicate any moral depravity whatever.

The condition may last for weeks or even months. The disease often terminates fatally, from insomnia or refusal of food. The minor symptoms and treatment are the same as in common mania or melancholia.

Alcohol, while it may induce many nervous diseases, gives rise to two especial conditions,—*mania a potu* or delirium tremens, which, however, is not a good term as we may have the same thing from emotion or opium eating, and *chronic mania*. In this there is a singular predominance of ideas of persecution, and tremors in the lips and hands.

I will not speak here of delirium tremens, as the consideration of that subject belongs to general medicine. The tremors and the hallucinations are supposed to be pathognomonic, but I do not think they are.

*Chronic alcoholic mania* is frequent and important. The patient is not much excited, and there is almost always dementia from the start. The loss of intellect has progressed steadily from an early period, but we do not get the peculiar, jerky speech and shakiness seen in general paralysis. Neither are the tremors exactly like those of general paralysis; they are coarser and more like common trembling in alcoholic mania. The condition seldom admits of cure; the patients may have remissions but they gradually grow worse. We may have other diseases due to alcohol occurring at the same time, such as cirrhosis of the liver, or Bright's disease of the kidneys, arterial degeneration, etc.

The diagnosis between the chronic mania of alcohol, and general paralysis is sometimes difficult.

Persons suffering from this disease are dangerous individuals.



They have ideas that other people are persecuting them and consequently they are often led to assault strangers or their friends, break windows, smash furniture, etc. A great many persons are arrested and imprisoned for offences of this kind and their true condition is not recognized.

*Syphilitic Insanity.*—During the last five years, a great deal has been written about this form of insanity and it is well worthy of consideration on account of its diagnosis and treatment. It may assume the form of mania, melancholia, or a false general paralysis, which last has been admirably studied by Fournier during the last year. Besides a recent German writer has added to these forms, a syphilitic *coma*.

A patient who is in the secondary or tertiary stage of syphilis may suddenly become maniacal, and the only diagnostic point lies in the past history. In some cases of mania, then, if you can make out a syphilitic history where there is no family predisposition to insanity, you may put the patient under specific treatment, and if the treatment does not do good, it probably does no harm. Iodide of potassium may be given in pretty large doses, but mercury should also, always be employed.

Melancholia occurring in the same way in syphilitic subjects should be similarly dealt with.

The general paralysis so-called, of syphilitics is peculiar in character. We do not obtain the regular gradations and stages of the true disease. The moral perversion which is peculiar to general paralysis is absent, neither do we see the pure exalted notions. The fibrillary tremors that are so well marked in general paralysis are not present here. The articulation is more mumbling in character. We likewise are apt to have a great deal of actual paralysis of cranial nerves or body in these cases. In true general paralysis after attacks of hemiplegia the patient regains his full strength, whereas this is not apt to occur in the syphilitic variety. The following table will perhaps show clearly the main differences.

*Syphilitic General Paralysis.*

Absent.  
Rare or absent.  
  
Speech is thick.  
Absent as a rule.  
Paresis or actual paralysis.  
Apt to be open or wide.  
Palsy of third or of other cranial nerves.  
Headache nocturnal.  
More serious aphasic attacks.  
Progressive except under treatment.

*True General Paralysis.*

Prodromic stage.  
Exalted notions, numerous and varied, and relatively exalted according to the position in life.  
Speech is tremulous and jerky.  
Tremor of hands and lips.  
Preservation of strength.  
Pupils are apt to be contracted.  
None.  
  
None.  
Transient aphasic attacks,  
Spontaneous remissions.

Some other differences between the two conditions are as follows

The patient with syphilis has none of the cravings or abnormal appetites of the other; the latter feels an impulse to get drunk or to have an excess of coition. The tendency to excessive coition is absent in syphilitic paralysis and indeed there is a marked loss of the virile power. The temperature changes are also absent in syphilis of the brain. The rise in temperature in general paralysis of the insane is very great, often reaching to  $103^{\circ}$  in exacerbations. There is no rise of temperature in syphilis of the brain except perhaps when the patient has hemiplegia from a large lesion.

The most important point is, that in syphilis, there is a paralysis, in general paralysis there is irritation and incoordination without true paralysis. As a help to the diagnosis where you have a case of seeming general paralysis, you must go back to the history, and when you are doubtful about the proper treatment, you must try the test of specific treatment on the case. Do what we practitioners call giving the patient the benefit of the doubt.

Syphilitic coma, described but lately by Erlenmeyer, is only interesting clinically. The patient suddenly becomes unconscious, there is no definite paralysis, the pupils are open, he receives food and swallows. The condition is not unlike that of an extremely drunken man.

Erlenmeyer relates a case of an officer who was found in bed in a comatose state and remained so for a length of time. A syphilitic history was determined; he was treated in accordance with that view of the case by inunctions and potash, and was cured. There is nothing yet known as to the pathology of these cases.

We will now in a few words discuss *moral insanity*. At least a third of present authorities deny its existence. Those who believe in innate wickedness will of course hardly admit it. What is really the case is, that there is a slight perversion of judgment, and as a sequence we have immorality. The advocates of a purely moral sense, independent of reasoning, are every day becoming fewer.

It seems to me that our so-called moral sense is derived from experience and the exercise of judgment. So in some forms of insanity, the reason why patients have no moral sense, is because judgment is impaired and the passions are uncontrolled. In extreme cases among the lower classes there are persons who may be said to have no moral sense, because they have been unenlightened. For example. Servants and workmen often think it is not wrong to appropriate articles of small value belonging to their employers, and there are individuals who persuade themselves that perfect liberty of sexual indulgence is right. To most of us these things imply perversion of judgment and not actual immorality; it is an intellectual fault which does not constitute legal insanity.

Let us pass on to greater things, such as homicidal acts. There are many who have never had a correct estimate of the value of human life, who do not consider it wrong to destroy those who are inimical to them. It is not scientific to say the devil is in these people, such conditions of mind are simply manifestations of imperfect development or mental deterioration. Recent investigations into penitentiary statistics seem to establish these facts. In Germany and

France mental defects have been noticed to go with irregularly or badly shaped crania in convicts, and Benedict of Vienna has recently gone over the ground again, and reached the conclusion, that a large proportion of Austrian convicts have badly or irregularly developed crania.

I have spoken in this way in order to justify my belief in moral insanity. The medico-legal aspect is what most concerns us. In the courts, the views I have given you have, as yet, little standing, but their weight is beginning to be felt. This is shown in various ways. Now almost all prisons have asylums for the insane connected with them, and prisoners are being constantly transferred. Probably many of these, were insane, medically speaking, at the very time of committing the attack for which they are punished. It is possible, however, that others may have become insane while in prison, but that is not the rule. I think that you should be prepared to defend patients in this condition, but at the same time be careful to see that your examination of the cases be absolutely unbiassed and pure-minded.

A few words as regards *dipsomania* and *kleptomania*. Those who suffer from these so-called forms of insanity, can not resist drinking and stealing. *Agoraphobia*, described particularly by Westphal, means a fear of places. As regards these "forms," they are, I believe, only evidences of insanity in a general sense. Thorough investigation will usually reveal some other traits of an unsound mind besides the one peculiarity which impresses the superficial observer. These are not distinct forms of insanity, as some would have us believe.

For dipsomania there is no test; we must rely on the patient's statement that the impulse is "irresistible." A kleptomaniac will take things that do not belong to him without regard to their intrinsic value. A patient who is well-to-do in the world will steal little things, though he may also take valuable ones, but the average worth of the stolen articles is usually small. Moreover, he does not dispose of them as would a sane person who wickedly steals.

Agoraphobia is a very curious condition in which the person dreads to go in certain streets or localities. This dread is sometimes so great, that nothing can make the individual venture into the dreaded place. I have recently seen a case of this kind in consultation with Dr. Emerson. The patient had an intense dread of a ferryboat and although he had often been on them, it was difficult to induce him to cross the river on one. I could not discover anything else abnormal except that he had occasional ideas of the same kind about cars. He had a vague fear, not of any particular accident; and sometimes even the thought of a boat or car produced terror.

I have had several patients who were put into a state of trepidation by going into a public dining-room. Two of these cases I remember particularly. One of them was a large, powerful man who had shown bravery in war. Though living in a hotel he always had his meals sent up to his room, as going into a dining-room produced great distress. I should add that these were not cases of insanity, but of general nervous prostration—neurasthenia so-called.



## HOSPITAL RECORDS.

## HOSPITAL DEPARTMENT OF COLORED HOME.

Reported by R. G. WIENER, M.D., House Physician.

## ADDISON'S DISEASE.—SERVICE OF DR. WHITALL.

Joshua H., brown skin (?) admitted Jan. 28, '78.

Father and mother mulattoes. Says that two years ago his color was that of a light mulatto.

Father died suddenly, mother of dropsy or cardiac.

Had three brothers and two sisters; one brother died of hard drinking, two sisters and one brother of causes unknown; one brother only is living and well.

Does not remember ever having had the usual disorders of childhood. Had tertian intermittent when 16. Has been rather loose in his habits; would drink and run about a great deal. In 1857 he had clap, and one sore on his penis, which was cauterized. Experienced no bad results from latter. Seven years later he again had a number of sores on his penis.

At present time there is a clump of enlarged glands on right side of neck the size of a hen's egg, enlargement more marked within last six weeks (though glands began to be large and tender in 1864), the epitrochlear glands are moderately enlarged; a number of maculæ are visible over back and chest, and irregular nodules noticed over both tibiæ; the glands above and below Poupart's ligament on both sides are somewhat enlarged.

Up to eighteen months ago he was in excellent health, well developed, strong and robust. His weight at that time was about 180 lbs. Since, has fallen away considerably, and has lost strength. For about same period he has noticed a change in his color (to be described below.)

On admission, patient is fairly nourished, complains of loss of flesh and strength with swelling of glands in neck, also is troubled with pains in his limbs, coughs some, raising a white frothy sputum. Weighs 128 lbs.

Appetite is fair, bowels are constipated, tongue is coated.

*Urine.*—Straw, alk. 1020. No alb.

*Lungs.*—Percussion fair over both lungs. Respiratory murmur feeble. Vocal fremitus marked all over. Few rales posteriorly on left side on coughing.

*Heart.*—Sounds feeble but healthy. No hypertrophy.

*Spleen.*—Not enlarged.

## DESCRIPTION OF CHANGE IN COLOR OF SKIN.

The discoloration of the skin was first noticed by patient a year ago; it commenced on the neck as a thin black ridge corresponding to upper margin of collar and gradually spread over the body uniformly, not in patches; it was darkest on the left cheek, but is now becoming lighter. Patient's eyes, which were originally black, have turned to a brown. The face has a uniform dark shade extending around eyes

where it is of a lighter color, contrary to the general appearance in faces of colored people. The mucous membrane lining the cheeks and lips, has a pigment deposit, especially at line of junction of teeth; this is most marked on right side; same on gums.

Patches of deeper than general hue on abdomen and thorax, where mustard had been applied.

Whole body otherwise of light brownish tint.

Back is speckled over with few stains of dark color, and also remains of papular eruption.

Scrotum and penis exceedingly dark.

Microscopic examination of blood reveals :

Red corpuscles present in normal quantity, natural in appearance and forming readily into rouleaux. Slight excess of white corpuscles 15-20 in field.

*Feb. 5, 1878.*—Examination of urine chemically reveals negative results, quantity passed 28  $\bar{5}$ . Urea 148 grs.

Patient has had some fever for few days past, feels well otherwise, weighs 128 lbs.

*Feb. 9, 1878*—Examination of urine gives negative results as regards albumen. Quantity passed in 24 hours 28  $\bar{5}$ ; amount of urea 211.31 grs. Microscopic examination reveals a few small hyaline and granular casts and some renal epithelium; also an abundance of sporules, round in form, and showing a tendency to join together. The thalli were so small and translucent as to be almost invisible, resembling very much leptothrix buccalis.

*Feb. 12, 1878*—Palms of hands about same color as they would be were his present acquired complexion normal (also somewhat mottled). This P. M. temperature higher than usual. No increase in cough.

*Feb. 16, 1878.*—Urine examined to-day; brandy colored, slightly turbid, acid, 1012. No albumen; abundance of small hyaline casts, some of them slightly granular.

*Feb. 29, 1878.*—Had profuse epistaxis yesterday, felt quite faint afterwards.

*Feb. 25, 1878.*—Patient growing weaker. Least exertion makes him short of breath; is, however, in excellent spirits. Emaciation since admission quite perceptible.

*Feb. 26, 1878.*—Examination of urine reveals same casts as previous specimen.

*March 5, 1878.*—Patient's wife states that the mustard plaster on abdomen was applied about a year previous to change in color of skin.

Eyes growing lighter for last 8 months.

Color at present two shades lighter than it was when patient was admitted to the Home.

Abdomen is retracted, muscles are rigid and patient greatly emaciated.

Urine collected for 24 hours; amber, acid, 1020. No albumen. Amount passed, 16  $\bar{5}$ ; amount of urea passed, 106½ grs. Microscopic examination revealed casts as before.

*March 13, 1878.*—Patient's general condition improved, he feels stronger and better in all respects.

Appetite is pretty fair. Bowels constipated. Color several shades lighter than when admitted. Patient weighs to-day 120 lbs.

*March 20, 1878.*—Patient up and about ward; feels very well. Bowels are regular.

*April 2, 1878.*—Patient since last note has been in good condition; color has been getting a little darker.

*April 6, 1878.*—No marked change, since last note is some shades darker, cough not increasing. Urine, amount passed, 56  $\frac{5}{8}$ , urea 268 grs.

*April 23, 1878.*—Urine, amber, acid, 1013. No alb., 42  $\frac{5}{8}$ , 21 grs. urea; Small hyaline casts.

*May 1, 1878.*—Patient discharged this day; condition very good; feels strong and able to work. Examination of lungs reveals nothing abnormal. Glands in neck still enlarged.

## PERISCOPE.

### LIGATURE OF THE CAROTID FOR HÆMORRHAGE AFTER ERYSIPELAS.

A singular case, for which ligature of the carotid was employed with success, was lately communicated by M. Denucé to the Académie de Médecine. The patient was a young officer who suffered from a suppurating otitis, accompanied first with severe pain, and afterwards swelling in the temporal region, with erysipelatoid redness. Three incisions were made into the swelling, each at a few days' interval. The last was followed by considerable hæmorrhage, easily repressed by the application of perchloride of iron and by pressure. Eighteen days later, while the patient was rapidly improving, a large hæmorrhage suddenly occurred, filling the cavity of the phlegmonous abscess, and escaping in jets at the several openings. Compression and ligature of the temporal artery did not arrest the hæmorrhage, and the cavity was therefore filled with lint soaked in perchloride of iron, which for the time stopped the bleeding. Two days later it recurred, and was arrested by the same means, but a considerable increase of the sloughing inflammation was the consequence, and the abscess spread to the region of the jaw, and thence a fresh hæmorrhage occurred externally and into the mouth. Compression and perchloride of iron were again resorted to, but the patient had become extremely anæmic, and evidently unfit to bear a fresh hæmorrhage. The common carotid was therefore tied, the tumefaction of the upper part of the neck being too great to permit of ligature of the external carotid. The huge temporal cavity was then emptied, and its blackened walls dressed, with slight pressure, and daily washed out with a solution of "coal-tar saponine." The walls rapidly presented granulations, and at the end of a month cicatrisation was almost complete. The ligature fell without any disturbance, and the patient rapidly recovered.—*The Doctor.*



ABSENCE OF EXTERNAL ORGANS OF GENERATION. REPORTED BY  
GEO. C. OGLE, M.D.

The subject of this report I have known from her infancy. She is now twenty-eight years of age, tall but delicately made, sprightly and fond of society. She presents all of the appearances of a well-developed woman, mamme well formed and general deportment that of a woman in full possession of perfect generative organs.

I have not had an opportunity to examine this lady since she reached maturity. The following condition was observed at the time of last examination some years ago. There was an entire absence of all the external organs of generation, and the parts were completely sealed, presenting the appearance of the perineum; no meatus existed and micturition took place through the umbilicus, the urachus not having closed at birth; there being no sphincter at the umbilicus, the urine passes involuntarily and is restrained by wearing a compress.

I have not had an opportunity of making a digital examination per rectum to ascertain whether there is a uterus, as she is a modest and refined lady both by birth and education, but believe there is, as she has hæmorrhages from the lungs, which recur at regular intervals, and have done so since she reached maturity, which I believe to be vicarious, in place of the catamenia, for which there is no outlet.

This lady had a first cousin similarly deformed, who died of consumption before she reached maturity. I had no opportunity to examine this person.—*Md. Med. Journal*.

CHRONIC INTERSTITIAL NEPHRITIS.

DR. SENATOR, of Berlin Virchow's *Archiv*, Band lxxiii., Heft 1) reviews our present knowledge of this disease. He more especially draws attention to the hypertrophy of the heart which, he says, is frequently unaccompanied by dilatation, and is, therefore, not recognizable in many cases during life or in certain stages. He does not attempt to settle the vexed question of the changes in the arterioles, but inclines to the view of Ewald and Thoma, that they may be regarded as coming under the general class of conditions described by Friedländer as endarteritis obliterans.—*London Med. Record*, July 15, 1878.

• CAMPHOR AS A NARCOTIC FOR FEMALE LUNATICS.

According to DR. EUGENE WITTECH *Berl. Klin. Wochenschrift*, No. 11, 1878, camphor is an excellent remedy for the sleeplessness of a certain class of female lunatics with melancholia, accompanied by extreme anxiety, hallucinations of a terrible nature, and a low state of general nutrition. The ordinary drugs, such as chloral, morphia, and bromide of potassium, as well as various kinds of baths, all fail to induce sleep, whereas after the subcutaneous injection of 0.1 to 0.2 gramme camphor, the patient quickly becomes drowsy, and soon goes off into a sleep of several hours' duration. The camphor is dissolved

in sweet almond oil (1.0 in 10.0 grammes) and the injection is less painful than one of morphia. The canula must be rather wide, otherwise the oil does not flow readily. Abscesses never occur, even though the injections are often repeated. It is important to begin with the smaller dose of 0.1, for cases have been met with where a dose of 0.2 failed to narcotize, whereas 0.1 succeeded admirably.—*Med. Times and Gas.*, July 27, 1878.

#### ABSORPTION OF FOREIGN BODIES BY THE LUNGS.

RAPPERT (Virchow's *Archiv*, Band lxxii. describes the results following the absorption of soot by the lungs. He endeavored to eliminate some of the complications resulting from the methods adopted by other experimenters; especially by Slavjansky. His investigations were directed towards ascertaining the alterations produced in the epithelium of the air-passages as well as in the sub-epithelial tissues, when air containing particles of soot was inhaled. He also sought for the channels by which the soot particles were received into the interstitial tissue, the force causing them to enter, and the condition in which they were while entering, whether as free particles or inclosed within cells.

By causing the animals to inhale air laden with soot from an ordinary petroleum lamp from which the chimney was removed, he obviated the introduction of material capable of producing chemical changes. It was found that the particles were taken up in part by the alveolar epithelium and in part entered the tissue. The former gave rise to such alterations in the cells that a subsequent desquamation of them took place.

In general, the soot passed directly into the tissues, and only to a very limited extent by means of amœboid cells. After it had entered the tissues, it was always found within certain portions of the lymphatic system. It could not be accurately determined through what channels this entrance took place, although it seemed most probable that such were present between the epithelial cells, and that the lymph-currents furnished the force by which the particles were carried along.—*London Medical Record*, July 15, 1878.

#### LIGATURE OF THE ARTERIA INNOMINATA FOR ANEURISM OF THE SUBCLAVIAN ARTERY.

Mr. R. T. Gore, of Bath, records (*Lancet*, July 27, 1878,) the following case:—

D. D—, aged fifty-two, a tall, well-formed, and muscular man, was admitted into the hospital, Bath, Sept. 22, 1856. About three years ago his attention was directed to a swelling in the axilla, about the size of a walnut. In a few weeks it increased in size, with pain extending as far as the elbow. It remained stationary until the spring of 1856, when it began to enlarge rapidly, with increasing pain, and was observed to pulsate.

On admission, a large pulsating tumor was found occupying the

right axilla, and extending upwards beneath the pectoral muscles and clavicle, until it came in contact with the scaleni muscles. He appeared in fair general health, though much distressed by pain and want of sleep. The pulse was about 80, and the actions of the heart and lungs quite natural. The whole tumor pulsated more or less distinctly, with an aneurismal thrill. The swelling approached so near to the scaleni as to render the application of a ligature on its cardiac side impracticable.

The ligature of the arteria innominata was decided on, after consultation with the other surgeons of the hospital, and performed under chloroform on Sept. 24, 1856. An incision was made a little above the upper margin of the clavicle along its inner third, and carried to about an inch beyond the sterno-clavicular joint. This was met by a second incision along the inner edge of the sterno-mastoid muscle, and the flap thus formed reflected upwards and outwards, including the sternal attachment of the sterno-mastoid. The sterno-hyoid and sterno-thyroid muscles were then carefully divided close to the sternum. A vein of some size was here divided, and tied at both ends. A very little, but cautious dissection exposed the arteria innominata; an aneurismal needle was passed behind it from the outside, and the vessel tied with a hempen ligature. Pulsation at once ceased in the tumor, and in the arteries of the arm and face on the right side.

The practical difficulties of the operation were by no means great, and in a long-necked person are, no doubt, much less than in the ligature of the subclavian on the outer side of the scalenus. The quantity of blood lost was quite trifling. The limb was wrapped up in cotton-wool and blankets. He passed a fair night with an opiate, and on the next day expressed himself much relieved. There was not any pulsation in the arteries of the tumor nor in the arteries of the arm, though there was a faint one in the temporal artery. Pulse 110; skin cool.

Sept. 26. He had a rigor in the night, and there is a slight cough, and also a blush of redness around the wound, which begins to discharge rather freely. Three sutures were removed.

Oct. 1. The redness is less; the pulse 108; the cough nearly gone, and he has slept fairly.

5th. He had a second attack of rigors, followed by tension of the tumor and arm. The arm kept up a fair temperature, and the blood in the veins moved slowly towards the heart. The treatment consisted in a free use of opiates and stimulants.

8th. The unfavorable symptoms had nearly disappeared, the wound looking healthy and suppurating moderately; but it was noticed that the ligature had an impulse communicated to it by each action of the heart.

He went on fairly well until Oct. 10, when, on the seventeenth day after the operation, during a fit of coughing, a clot of dark color escaped from the wound, and was followed in fifteen minutes by a stream of arterial blood, which continued to flow until his death, within an hour from the beginning of the attack.



*Necropsy, fourteen hours after death.*—The arteria innominata was partially cut through by the ligature, which was firmly attached to it. Its cardiac extremity was scarcely at all contracted, but was partially plugged by a firm clot, three-quarters of an inch long. The aneurismal tumor, now very much reduced in size, was filled by a firm coagulum occupying the subclavian, axillary, and upper part of the brachial artery. It was of an elongated, fusiform shape, and on the cardiac side came in contact with the scaleni muscles. The carotid artery was blocked up as far as the bifurcation by a firm clot. The right subclavian vein was filled by a soft coagulum, and its coats thickened. The aorta was coated with many deposits of atheroma. Extending from the wound into the anterior mediastinum was a large cavity, stretching upwards in the neck under the sterno-mastoid muscle, and filled with offensive pus. The heart was healthy. The lungs were somewhat congested, and the bronchi filled with thin mucus.

Though the above case was unsuccessful, the impression it left upon my mind is, that under favorable circumstances the operation is in certain conditions justifiable and advisable, and that with the improved methods now available it may be yet followed by favorable results. Nor does it militate against that view if I add to this history the fact that more than fifty years ago a similar operation was performed in this city, followed by death on the fifth day. But in that instance, though the case was in many respects favorable, the operation was over-long delayed, and was at last undertaken somewhat hastily and unadvisedly, owing to the occurrence of a train of symptoms the true character of which was altogether misunderstood and misinterpreted. They were, in fact, the signs of an attack of acute pericarditis, which was a sufficient cause of death. The state of parts about the seat of ligature, as seen after death, was very satisfactory and promising, as there was a firm clot on the cardiac side, and no signs of suppuration in the mediastinum.

I may further state that preparations illustrative of the two cases are lodged in the museum of the United Hospital in this city.

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#### A MEANS OF LOWERING THE GENERAL TEMPERATURE.

Mr. Spencer Wells, in his lecture on the diagnosis and treatment of abdominal tumors, states that as a means of lowering temperature in cases when it has risen after ovariectomy, he has tried a tonic in small doses, quinine in large doses, salicylic acid in the form of salicylate of soda, in fact almost every medicine that has been suggested as effecting this purpose, but all these trials have ended in disappointment. He has, however, succeeded distinctly in lowering temperature, and in keeping it low by the application of ice or iced water to the head. The first trials were made after a suggestion of Dr. Richardson, by putting an ice-bag round the neck. Dr. Richardson believed that by iceing blood that went through the carotids to the brain, and blood that came back through the jugulars, we should directly lower the temperature of the brain itself; and probably it may have been done experimentally, but in practice it was not found easy to do. It was

difficult to keep any kind of cravat or collar that was tried, filled with ice, round the neck of the patient; it slipped off, and the old India rubber bag or ice helmet, so well known in lunatic asylums, had to be resorted to. After a time Mr. Thornton combined a particular form of cap which answers the purpose extremely well. A pail of water with a large lump of ice in it is placed above the bed of the patient and the stream of cold water runs through the cap, which is formed of a coil of India rubber tubing lined with linen. That is placed upon the patient's head, and is made of different sizes and shapes to fit the patient; the other extremity of the tube is put into a second pail at the side of the bed, and by this means the head is iced. The effect in lowering temperature is very marked, the thermometer in almost all instances indicating a fall of temperature within an hour. If the temperature by rising it is checked, and if very high it can be lowered, and so time is gained for the recovery of the patient. Many of the evil effects of ovariectomy appear to be due to the fact that the temperature of the body is for a time too high. The brain receiving blood of a temperature 5-6° higher than it has been accustomed to, does not give its orders to the secreting organs as it should do, and they all suffer in consequence. The kidneys do not act, there is no action of the bowels, and all the processes of nutrition and secretion suffer.—*Brit. Med. Journal, July, 13.*

#### DISLOCATIONS OF MUSCLES AND THEIR TREATMENT.

Mr. Callender remarks that but little attention has been paid to this class of injuries, though they are followed by considerable inconvenience, by pain, often of long continuance, and by interference with the very amusement or occupation in the practice of which they have been sustained. Mr. Callender refers to various cases of displaced tendons, as of the biceps, the tendons about the wrist, and the peronei, in all of which, whilst the reposition of the tendon is not very difficult, the unsatisfactory feature of the treatment is the impossibility of preventing in many instances the recurrence of the displacement. He then proceeds to consider dislocations of the muscles themselves, and the following may be taken as a typical case. A man, aged forty-six, was playing at lawn-tennis, when he felt a sudden movement with intense pain in the right fore-arm. He rested the arm, had advice, but the pain persisted. When the accident happened the fore-arm was suddenly thrown into the extreme of pronation whilst he was making a back-stroke. On examining the arm, Mr. Callender found there was tenderness along the course of the pronator radii teres, and the pain in the fore-arm was severe when the hand was moved in pronation. The hand was brought into pronation, and with a pad fitted to and applied over the course of the pronator, firm pressure was made upon the muscle, whilst the hand was carried to the extreme of supination. The pressure, the patient said, gave relief, and on removing it the pain had ceased; the fore-arm could now be freely moved. The parts were rested in a sling, and he was told to keep the arm quiet. In two days time he again tried the muscle at lawn-tennis, and again the pain recurred. The

muscle was again returned to its place, and this time the arm was so fixed that the muscle was secured against further dislocation, and as no movements have since been made which would cause its displacement, the patient has remained well. As general rules for reducing dislocation of muscles, Mr. Callender recommends, that an accurate diagnosis should first be made of the muscle dislocated; secondly, the muscle should be relaxed as far as possible; thirdly, by firm manipulation, such as rubbing with the hand or by kneading with the thumb, an endeavor should be made to replace it; and lastly, pressure should be made whilst the muscle is on the stretch.—*British Medical Journal*, July 13, 1878.

#### STRUMA AND SYPHILIS.

At the meeting of the American Medical Association Dr. Storer read a paper on this subject, and stated as demonstrable the following propositions:—

1. Syphilis, like other toxæmia, was more prone to become constitutional in the strumous than in the perfectly healthy subject.
2. Struma, the result of syphilis, was comparatively seldom recognized during life, and still more infrequently received appropriate treatment.
3. Syphilitic struma, personal or by heredity, was in no sense self-limited.
4. Predisposition to syphilis by heredity, both of itself and as affected by struma, was much more frequently intense than is generally supposed.
5. Transference of primary syphilis, sometimes by perfectly healthy women who were entirely free from specific disease, was an element not to be overlooked in discussing syphilitic struma.

Dr. Storer believed that a sufficient number of perfectly healthy women could transfer the contagion to keep up the disease indefinitely. He also maintained that consumption was caused by syphilis; that the contagiousness of phthisis was established; that syphilis was never entirely eradicated from the individual; and that it was possible to diagnosticate between syphilis and struma by means of the microscope.

#### NEWS ITEMS AND NOTES.

**The Animus of Suits for Malpractice.**—The editor of the *Pacific Medical and Surgical Journal*, forcibly says on this subject:

Of the many suits for malpractice that have come under our observation, we have scarcely ever known of one which did not exhibit, on the part of the prosecution, a baseness of motive, and an absence of honor thoroughly disgraceful to the human character. Nine times in ten the plaintiff is a pauper who has received the gratuitous service of the man whom he prosecutes; or worse than a pauper, a sordid villain, who resorts to the expedient to evade payment, or as a business speculation. There is always a ring, which is completed by one or more jackals of the law, who are prompt to instigate litigation for



the purpose of plunder, and one or more medical witnesses, of the sneaking and malicious type.—*The Medical and Surgical Reporter*.

**The Actual Results of the St. Louis Law Regulating Prostitution.**—It is no easy matter to determine whether the law which, for a few years, regulated prostitution in St. Louis, was of positive general good. The Mayor said, most positively, that it was; several members of the American Medical Association reported to that body that it was; the editor of the St. Louis *Clinical Record* says: "The working of the law once in force in St. Louis, imperfect as it was, demonstrated to our satisfaction the necessity and utility of some regulation of the evil. Appeals to prejudice are of no avail; let us have facts in relation to this subject." On the other side, a series of frantic appeals to prejudice, and assertions wholly unsupported by evidence, are all we have seen offered.—*The Medical and Surgical Reporter*.

**Accidental Poisoning with Carbolic Acid.**—It is time that chemists and every one else in the habit of using this disinfectant should be careful that it is not dispensed or left about in such a manner as to run the risk of being taken for some other substance. A few days ago a boy, aged 13, died through drinking some of this acid out of a bottle which had been carelessly left in a shed without the cork being tied down, and without any label upon it. The deceased, with another boy, supposed that the bottle contained beer, and accordingly drank some of its contents.

It is to be regretted that a valuable new remedy cannot be employed long, before the abuse of it, or the careless sale or dispensing of it, entails some serious and often fatal accident among the community. It is not long since both chloral and carbolic acid were first brought to the notice of the profession, and already there have been many cases of poisoning by these drugs. In the case above mentioned one of the jurymen was for bringing a verdict of manslaughter against the local sanitary authority, to whom the bottle belonged. Such a verdict would have been scarcely justifiable, but perhaps few accidents of the kind would occur if the chemist or the owner of the poison, as the case might be, were subject to a fine in the event of a fatal accident arising through their negligence. Besides, the frequent occurrence of these accidents prejudices the mind of the public against drugs which, if used in a proper manner, are very valuable agents, either in the prevention or treatment of disease. It has, for instance, been suggested that carbolic acid should not be used at all as a disinfectant, but few who are acquainted with the composition and properties of this agent will admit the propriety of the suggestion.—*The Medical Press*.

**Transfusion in Anæmia.**—Dr. Letters, of Dundee, tried transfusion in a case of chronic anæmia resulting from gastric hæmorrhage. He operated with Roussell's apparatus, working it under water at a temperature of 104°. This method, he says, (*Lancet*, July 27) more fully excludes the air and prevents the cooling of the blood in its passage through the 24 inches of tubing. The case in question was most suc-

cessful, the transfusion having completely changed the aspect of affairs; and Dr. Letters urges that the small quantity of blood from a healthy person—insufficient to affect the giver—will often save life.—*The Doctor.*

**A New Function of the Liver.**—Lautenbach (*L'Abeille Médicale*), finds that on ligaturing the portal vein, immediately before it enters the liver, the same symptoms are produced as follow the absorption of a toxic dose of narcotics. As the result of these experiments, he concludes that one important function of the liver is to eliminate from the blood passing through it a poison similar in its action to nicotine and hyosciamine. As proof of this, he injected the portal blood of dogs in whom the vein was ligatured, into thirty-four frogs, and all 34 died narcotised. He found further, that nicotine and hyosciamine were modified considerably in their action when injected into the unligatured portal venous system, as compared with their effects when injected subcutaneously, or when the portal vein is ligatured. One drop of nicotine is rapidly fatal to a dog, if it does not, but even two are not fatal if it does, pass through the liver.

Dr. Murchison, in his lectures on "Functional Diseases of the Liver," 1874, points out the primary practical importance of keeping in view the *other* functions of the liver, besides that of forming bile. It may be permitted to call them to mind when reading Lautenbach's observations.—*The Doctor.*

**Parasitic Diarrhœa in China.**—In Cochin China our readers are doubtless aware, the French troupes have suffered greatly from a form of diarrhœa, which is now known to be caused by the entrance of small animalculæ into the alimentary canal; these have organs of suction or prehension, and fix on the mucous surface (somewhat like leeches), causing an irritation which is manifested as dysentery. An interesting paper on the subject, and dysentery in general, by Dr. Dounon, appears in the *Moniteur Scientifique* for July. There are seven varieties of the Cochin China diarrhœa, and it certainly arises from the rivers and marshes, the active principle being conveyed into the body in drinking water. The Chinese and Annamites are free of it, because they drink either tea, or water purified with alum. Dr. Dounon recommends, as a remedy, the more simple method of boiling the water, as this at once destroys the germs and animals. He thinks it very probable that various other forms of dysentery in other countries are of parasitic origin, and to be prevented by the same means.—*Med. Press.*

**Mr. Charles Darwin** has been elected corresponding member of the Paris Academy of Sciences in the section of zoology by 26 votes against 14. This success is all the more notable because Mr. Darwin obtained only 5 votes in a scrutiny which took place quite recently. Prof. Asa Gray has been elected a corresponding member in the section of botany to succeed the late Dr. Braun, of Berlin.

**Drowning of a Lunatic.**—As several lunatics from the Bodmin county asylum were being taken for exercise near the sea coast of



North Cornwall, two of them escaped from their keepers and ran up the rocks. Stripping their clothes off they sprang into the sea. Being excellent swimmers, they were in no danger until their return, when the waves dashed them violently upon the shore. They struggled long, and one succeeded in landing, but the other at length succumbed, after having nearly drowned his companion by catching his leg.—*Med. Press.*

**The Use of Thymol in Surgery.**—A lecture on this subject has been published in Volkmann's series, by H. Ranke, of Halle. The solution used instead of the 3 per cent. solution of carbolic acid, consists of one part thymol, ten parts of alcohol, twenty of glycerine, and one thousand of water, and can be employed as either a spray or a solution. An impregnated gauze is also used. Since thymol does not irritate the wounds, the gauze may be laid directly upon them; otherwise the same method is employed as in Lister's plan. If the gauze becomes hard and dry, it may be moistened once or twice a day with thymol water. In order to prevent the evaporation of the thymol from the dressing, the gauze is covered with oiled paper. From an experience of forty-one wounds dressed with thymol, the lecturer concluded that the method leaves nothing to be desired as to its antiseptic effect, and that it answers better than the carbolic acid dressing, since the secretion from the wounds is less, the period of healing shorter, and the cost of the dressings smaller. Further, it has no poisonous properties, and eczema was never seen in its use.—*Med. Press.*

**Cholera in Morocco.**—On account of the reported prevalence of cholera in Morocco, it has been decided to refuse permission to land from vessels sailing from the north coast of Africa after Aug. 27, even if they show a clean bill of health. Vessels arriving previous to that date are also refused permission to land passengers if they carry pilgrims. If the passengers are not pilgrims, they will have to perform ten days' quarantine.

**Emperor Wilhelm's Assassin.**—Dr. Nobeling, who made the attempt on the German Emperor's life, will be transferred to a lunatic asylum in order to be observed there, some physicians being of the opinion that he is not really deranged, but only simulating madness.

**Royalty again in Danger.**—Arsenic has been used in an attempt upon the life of the Emperor of Morocco. His Majesty is at present in a prostrate condition from the effects of this drug.—*Med. Press.*

**Embalming Compound.**—Mr. Richard J. McGowan, of New York city, has patented an embalming composition, consisting of a solution of saltpetre, thymol, chloride of aluminum, salicylic acid and glycerine, in alcohol and water.—*Scientific American.*

**Carbolic Acid in Whooping Cough.**—Mr. T. D. Harries states that two years ago he had a number of very obstinate cases which resisted every remedy excepting carbolic acid, under the use of which the



malady rapidly subsided. The remedy should not only be administered internally, but also deposited about the house as a disinfectant, in order to modify the disease in those not yet attacked.—*Lancet*.

**Nitrite of Amyl in Sea Sickness.**—The inhalation of nitrite of amyl is strongly recommended by Mr. C. Clapham who is supported, though less enthusiastically, by Dr. Leeson. The latter reports to the *Lancet* that he gave it until full flushing was produced. In three-fourths of his cases no vomiting occurred afterwards; in another fourth they still felt sick, and in a final fourth it seems to have been useless. He finds toleration of the drug soon becomes established. Great caution should be used with this drug, and there is a tendency to give too large doses. Two minims will usually suffice when it is first given.—*The Doctor*.

**A Vehicle for Quinine.**—Milk is recommended as a good solvent of quinine, and is said to disguise its bitterness. One grain is said by Mr. Batterbury to dissolve in an ounce of milk, and render it scarcely bitter, while two grains do not make it markedly bitter. Further, five grains dissolved in two ounces do not render it very unpleasant, while, put in a tumbler of milk, the bitterness all but disappears. Mr. Palmer, of the Birmingham General Dispensary, recommends a solution of quinine in glycerine—one grain to one drachm. A dose of this can be given in a wine-glassful of milk. Milk would seem to be a good vehicle in which to give quinine to children, but with regard to solubility we cannot understand why so few doctors make use of the neutral sulphate of quinine, which is soluble in water without the addition of acid, and which, therefore, offers every facility for administering quinine in a liquid form.—*The Doctor*.

**Distinctions to Medical Men.**—Pean, surgeon to the Hospital Saint Louis, Paris, has been made an officer of the Legion of Honor, and Raviar, the celebrated histologist, Professor of the College of France, has been created a chevalier of the same order.

**To the Medical Profession.**—The president and officers of the Medical society of the county of New York, will receive contributions for the aid of our suffering medical brethren and their families in the Southwest.

The donations for the present not to exceed \$5.00 from any one member, and from that down to \$1.00, so that all may take part in the good work, and none be severely taxed.

It is hoped that all the county medical societies in the State will take some efficient action in the same direction.

J. C. PETERS,  
President of the Medical Society of the  
County of New York.

**Murder by a Somnambulist.**—The *British Medical Journal*, of July 20th, gives the particulars of a homicide committed during the somnambulistic state. A man has been tried for the offense of throwing his son, eight years old, on the floor with such violence as to cause

death. The jury decided that the father was not responsible for the act. Such cases are rare, but several well-authenticated ones are on record.—*N. Y. Medical Journal*.

**Poisoned by Kid Gloves!**—A merchant recently bought a pair of navy blue kid gloves in Hamburg. After his arrival in Berlin, he put on the gloves and made several visits. Soon after he felt sick and languid; and a peculiar eruption appeared on the dorsal surface of his hands. While searching for the cause of his strange ailing, which greatly puzzled his physician, the patient thought of the new gloves and sent them to an experienced chemist for examination. The chemical analysis showed a considerable amount of arsenic in the gloves.—*Allg. Med. Centralz.*

**Salicylic Snuff in Hay Fever.**—Mr. W. J. H. Wood, in a case in which the previous year he had tried every thing, found immense relief following the use of snuff composed of pure salicylic acid. This was suggested to him by the fact that relief is often afforded by the topical application of solution of quinine, and, indeed, in this case, he first combined quinine with the salicylic acid, but the good result is now maintained much more agreeably by the salicylic alone, of which the patient snuffs about ten or fifteen grains daily. He speaks most highly of this white powder. As this observation extends only to one case, no conclusion can be drawn from it, but it will be a suggestion acceptable to those who are baffled by this very obstinate complaint.—*British Medical Journal*, July 20, 1870.

**Whooping Cough.**—Dr. M. Mannhiemer, of Chicago, has accomplished results in the treatment of whooping cough which are of interest. Dr. Mannhiemer has employed intralaryngeal insufflations of a fine powder, composed of equal parts of sulphate of quinine and white chalk. In nine cases the results were that the average duration of the disease, under this treatment, was six days.—*Canadian Jour.*

# THE HOSPITAL GAZETTE

AND

## ARCHIVES OF CLINICAL SURGERY.

A WEEKLY JOURNAL OF MEDICINE, SURGERY AND THE COLLATERAL SCIENCES.

EDITED BY

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### LECTURES.

#### CLINICAL LECTURE.

Delivered at Jefferson Medical College Hospital, Philadelphia.

BY

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Reported for THE HOSPITAL GAZETTE.

#### MECHANICAL INJURY TO THE EYE.

CASE I.—This man has been, and is still, a coal miner. Four months ago, by the premature explosion of a blast, he received a very severe injury in his right eye. While he was packing the powder in the drill it caught fire and exploded. He thinks there was a piece of flint among it. The iron was blown out of his hands a distance of some ten yards, narrowly missing his body, and buried deep in a log of wood. His face, hands, arms, and legs were very severely burned. You see these red scars all over his body. His sight was greatly impaired by the explosion: his right eye particularly. He thinks a small piece of coal struck him just under his right eye inflicting but a slight flesh wound, but causing a great deal of concussion. One symptom of this injury has been a constant spasm of the lids. This was due possibly to inflammation of the lids—a condition of photophobia. The first thing we did was to put a stop to this by means of atropia—dilating the pupil and quieting the lids.

The man's system was greatly shocked by the accident and he was in bed a long time.

Examining the left eye, i.e., its strength by means of these letters, I find that his vision is as good as it should be on that side. You notice the peculiar groping way he has of looking. When I come however to examine the strength of the vision of the right eye I find that he can not see "B" the largest letter on the card, at a greater distance than two feet. We should therefore put the vision of the left eye down as  $\frac{2}{100}$ .



Now I want to show you some peculiarities in the power of vision of the right eye. His sight is very limited in that eye, but that is not all. Telling him to put his hand on his left eye and keep his right one fixed on my nose, I hold a lighted candle in front of his right eye and he sees it; I move it up, or down, or to my left, he still sees it; but the moment I move it to my right, or to the nasal side of his right eye, he loses sight of it entirely.

I had one glance into his eye-ground yesterday and I can tell you exactly what is the matter. There is no external injury to the eye. The cornea and pupil are both entirely normal; such a case as this would be exceedingly likely to go unrecognized unless the ophthalmoscope were used.

When the ophthalmoscope was used yesterday and the light was thrown into the interior of the eye the whole thing was plain to me. The vitreous humour was entirely transparent, I saw no evidence of disease short of the retina and choroid. The choroid is, as you know, dark colored and composed of blood vessels—inside of the choroid is the retina—the expanse of the optic nerve. This man was struck below the eye: no external violence was done on any part of the ball, but the blow was transferred through the humours to the opposite pole of the eye and caused a severe laceration of the choroid and made lesions of the retina. The ophthalmoscope shows a confused intermingling of the two at the point of injury. These changes have taken place, at the exact situation of the yellow spot. It looks just as if I were to smear this black board with white chalk. The white chalk representing the retinal cicatrices and the black board the choroid showing through.

I need hardly say that there is very little to be done in this case. We may make a still more accurate study of the eye and find the exact dimensions of the field of vision, but there is no probability of our ever effecting any improvement in the condition of the eye. Its image screen, i.e., the yellow spot, a large part of it at least, has been destroyed and the retina and choroid thrown into a useless cicatricial mass at that point. The man's retina is like a mirror with the mercury rubbed off its centre.

CASE II.—This man tells me that he was struck in the right eye some ten years ago with a piece of stone, or iron—he does not know which. His sight was greatly impaired for two months after the accident. Ever since that time his right eye has been sore and well alternately. Inflammation of the eye has occurred about three times every year. Quite lately he has had a bad attack accompanied by severe pain in his eye. His vision at present, so far as the right eye is concerned, is reduced to the simple power of counting objects when held very near his eye. The tension of the right eye is very much reduced. His left eye has suffered a good deal lately from weakness.

Upon examining the right eye closely I find the cicatrix of the former injury. The iris had prolapsed into the rent and the iritic hernia been finally removed by absorption. The pupil is a large irregular black mark drawn towards the side of the eye. The constant

attacks of inflammation have made the eye abnormally soft and no doubt set up grave disease of its structure.

As regards treatment. The disease of the right eye has so far reduced its powers that, in my opinion, it is a very dangerous organ for a man to carry about with him in his head. The condition of the right eye is very liable at any moment to set up in the left eye a state of sympathetic ophthalmia. The man should make up his mind to have enucleation of the right eye performed as soon as possible. If the right eye were entirely blind I should not for a moment hesitate to give this advice, but even as it is I should have the operation performed. The right eye cannot possibly be restored to use and it will become more and more inflamed and degenerated each day. The treatment in this case is the treatment by prophylaxis, keeping the inflammation and softening from attacking the left eye also.

#### SYPHILITIC BRAIN DISEASE.—GUMMY TUMOR.

This man had syphilis twelve years ago. About a year since his eyes began to trouble him—little black spots appeared before them. Lately he has had headache and his sight has become very misty. Six months or so ago he had an attack of iritis. To-day the man tells me that the fog before his eyes is greater than usual. All the room seems to be heavy with mist. My assistant, Dr. Little, has found that his power of vision is about  $\frac{95}{100}$ .

I am going to examine into his case carefully in your presence. I tell him to put his hand over his left eye and to keep his right eye fixed upon my watch which I hold in a straight line from him and about two feet before him. I now take this lighted candle in my hand and proceed to test the range of his vision. I find that he can not see the light at all when held on the inner, or nasal side of his right eye—he loses sight of the candle the moment that I pass it across the median line. There is only one thing which can cause this condition of affairs. The right side of the perceptive centre of his right eye has in some way lost its communication with the cerebral centres—I think the case looks like one of central nervous disease.

Let me try the left eye. I repeat the same experiment with the watch and candle and find that the man cannot see the light held inside the median line of the left eye; that is, he cannot see the light when held decidedly beyond the median line, and yet the disease is not near so well marked in the left as in the right eye. The hemiopia on the right side is very well developed.

It now remains for me to try and explain the seat of the disease in this case. The trouble must be somewhere in the course of the optic nerve. Either in the nerve in front of the decussation, or in the nerve behind the decussation, or in the brain itself. If the lesion were in front of the decussation, the man would only be blind on one side—i. e., in one eye. The lesion must be behind the decussation. I think the real cause of the difficulty is a gummy tumor in the left hemisphere. This would explain exactly the somewhat peculiar symptoms—loss of the power of sight in the outer part of the retina

of the right eye, and the inner part of the retina of the left. The patient complains of some numbness of the right side of the face which would also point to the same central seat of disease.

This case reminds me of one which I saw some years ago. The case of a man the left side of whose skull had been fractured by a musket ball, the wound being a deep depression in the outer, middle, and inner tables of the skull. After a prolonged illness, during which a fungus growth developed, which had to be pared off, I saw the man some four years ago restored to health and activity. The only remnant of the injury once received was a complete loss of half the function of each eye—a symptom exactly similar to that in the present instance. In this case it is barely possible that there may be some local atrophy due to a neuritis in addition to the central lesion.

The treatment of the gummy tumor, if such exist, and that it does exist I am quite sure, must be anti-syphilitic. I shall order the man put upon the bichloride of mercury, and gradually increasing doses of the iodide of potassium.

#### ASTIGMATISM.

This youth is a student of veterinary surgery. For the past year or so, he has complained of increasing difficulty in the use of his eyes. He thinks he is near sighted. Is, in fact, obliged to hold his book within seven or eight inches of his eye when the type is small. His sharpness of sight with both eyes has been found to be only  $\frac{4}{100}$ . This is due probably to some optic defect. But there is another difficulty in his case which I wish to illustrate to you. I take this card with twelve large letters on it—four lines of three letters each. You will notice that the letters in each of these rows are formed by lines running in different directions—horizontal lines in the first row, vertical in the second, etc. Now, when I hold this card at a distance of twelve feet and ask the patient which letters he can best distinguish, he tells me he can only make out the top row, i. e., those made up of horizontal lines. His eye cannot distinguish vertical and cross lines.

In treating the case, atropia must be used, and we shall no doubt have a great deal of difficulty in picking out a pair of glasses which will remedy the defect.

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### CLINICAL LECTURE.

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Delivered at Jefferson Medical College Hospital, Philadelphia.

BY

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(Reported for THE HOSPITAL GAZETTE.)

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#### TINEA FAVOSA.

This boy presents to a most marked degree the typical symptoms of favus. This is a disease of the hairy scalp and is parasitical in nature. Its vegetable parasite breeds in the hair follicles. The disease is very frequently met with among the poor and particularly the uncleanly. It is quite common too among the smaller animals,



such as mice and cats. It is altogether local in character. It begins as a pustule around the roots of the hair with a crust of a sulphurish yellow color. This crust, its edges becoming elevated one-tenth of an inch above the surrounding skin, grows distinctly cup-shaped and umbilicated. A number of these umbilicated pustules coalesce to form a scab. The scab, very soon becoming discolored by dirt, assumes a greenish color.

The treatment of this condition is three-fold. The hair must be pulled out by the roots, the scabs poulticed and the parasites killed. Before beginning to pull out the individual hairs, around whose roots the pustules have formed, it is well to shave the whole head closely—say to within half an inch of the scalp. Then take a pair of delicate tweezers and pull out bodily all the affected hairs. These hairs must be pulled out in their long axis and not obliquely, or they will be very liable to break off short. The application of the poultice should be made immediately after pulling out the hairs in order that the pustules may be well softened. After applying the poultice it is time to rub in some parasiticide, such as the iodide of sulphur, or the bichloride of mercury. A very good parasiticide is made by adding gr. ij of the iodide of sulphur to  $\frac{5}{8}$  j of lard.

Favus is occasionally found affecting the nails. This is the case in the present instance. The disease is transferred to the nails in the act of scratching the head. Its manifestations in this new neighborhood presents the same general appearances. I forget the technical name which has been bestowed upon favus as affecting the nails. It is needless to say that the disease is exceedingly rare in this latter form.

#### TAPPING FOR DROPSY.

You will remember that on last Monday I brought two cases of dropsy before you in which the local treatment consisted in the introduction of canulæ for the purpose of draining off the serum lying loose among the tissues. I am happy to be able to bring before your notice to-day still a third case, and tell to you first, that my plan of procedure in the other two cases has been most eminently successful. The canulæ which I inserted have drained off the serum at the rate of one-half a gallon each per day.

The condition of dropsy in the present instance is the result, no doubt, of a catarrhal nephritis. The œdema is not only manifest in the man's legs, but has also invaded the penis and scrotum. The urine of the patient has been examined and found to be highly albuminous and slightly acid. It is also passed in very small quantities.

The method of tapping for dropsy by canulæ was first instituted by Dr. Southey. The instruments which I intend to use to-day are much more delicate than those employed by him. This minute trocar is, as you see, made of gold with openings at the end and on the sides. It has a sharp, three cornered point. I shall put one canula into each limb. I thrust each trocar well into the flesh from below upwards and fasten them in position by these strings which you see tied round

their bulbous extremities—the strings were fixed by strips of adhesive plaster) all that I have to do now that the canulæ have been inserted is to attach to their bulbous extremities slips of rubber tubing a couple of feet in length.

The trocars may perhaps slip out of their position slightly as the œdema subsides, but not enough to impair their usefulness. In cases where the fluid does not flow freely after the canula is inserted, its flow may be started by exhausting the rubber tubing by pulling it between your two fingers, pressed tightly together. In this instance the serum is already running out copiously.

In inserting the canulæ, be sure not to put them in too far down the limb, or the weight of flesh above them may produce a sore spot. The accumulation of serum in this case is large. If the canulæ become plugged up they should be cleared out by means of wire, or bristle.

As the present case is a recent one, I think the prognosis quite good.

#### ACUTE ARTICULAR RHEUMATISM.

Here are two cases of acute rheumatism. In both cases the disease is confined to the wrist and knees. One of these men has had gonorrhœa which I have no doubt is the cause of his trouble. Gonorrhœal rheumatism is closely allied in nature to empyema.

Both of these patients are sailors and have been without a doubt exposed to great vicissitudes of weather.

Rheumatism as a general thing shows itself first in the largest joints and is usually attended with fever. Occasionally the muscles of the throat are affected, with sore throat as a result. These latter cases are the so-called instances of rheumatic sore throat.

Rheumatism is a disease of the serous and fibrous tissues. The condition is supposed to be due to the accumulation of lactic acid in the blood—it is not converted, as in health, into carbonic acid and water. I have no doubt that this is at least one essential cause of the disease. This state of the blood is very likely to affect the muscles of the heart and also to produce endocarditis. In no case is the disease of the heart a metastasis. It has been experimentally proven that the condition known as endocarditis may be produced by the undue retention of lactic acid in the blood. The endocarditis affects the valves and so valvular disease of the heart is induced. This brings on dropsy.

The treatment of rheumatism consists in relieving the pain and modifying the condition of the blood. The urine is febrile and acid in character. To meet the above indications, the drugs commonly used are the nitrate, the bitartrate and the acetate of potassium. Quite recently a new remedy, salicylic acid, or the salicylate of sodium, or potassium, has been very largely employed and with most excellent effect in the majority of instances. This drug is usually administered in doses of from 10–20 gr. every two or three hours until a decided impression has been made upon the system. The only trouble has been in the decision as to how the drug may be best exhibited. To make a solution of the substance it must be mixed with ammonia. Perhaps one of the most satisfactory methods of adminis-

tering salicylic acid is in capsule, or in powder form mixed with milk.

Salicylic acid produces a very marked effect, as a general thing, but requires watching. At the first signs of sudden depression, its administration should be stopped and some stimulant given.

My usual treatment of acute articular rheumatism has been by  $f\bar{3}j$  doses of the acetate of potassium every two, or three hours. When the pain is severe, opium must be exhibited.

#### DILATATION OF THE STOMACH.

This young man comes here from the interior of the state with the history of a severe illness during which the spleen was very much enlarged. Lately he has suffered much from sudden fainting spells. He is emaciated and feels very weak unless he has food in his stomach. He shows a constant morbid desire to eat.

Upon examination I find that the tympanitic sound of the stomach tends for a great distance up and down. The œsophageal bougie goes in twenty-one inches from the teeth. In health we calculate sixteen inches, at the utmost, for this distance—nine inches for the œsophagus, three, or four inches for the mouth, and two, or three inches for the stomach. When the bougie does finally touch bottom, it seems to the patient to be in the neighborhood of his umbilicus—an inch, or two below it,

Dilatation of the stomach occurs from the existence of some impediment to the escape of the food from the pyloric orifice. In old people this is usually due to carcinoma. But it may be due to weakness of the muscles of the stomach itself, and consequent retention of the food and paralysis of its walls. I cannot imagine the original cause in the present case. There may be some fold of the mucous membrane obstructing the pylorus. The symptoms are those of dyspepsia with general emaciation.

In the treatment of this difficulty, we must try to produce contraction of the walls of the stomach, by washing out the ingesta with the stomach pump, and then rinsing out the stomach with carbonate of potassium, etc.—making a solution in water. We thus get the double effect of cleansing and gymnastic exercise. Another mode of treatment consists in passing a current of electricity through the muscles of the stomach.

To insert the stomach pump, turn the head back and pass the tube down the œsophagus over two fingers placed in the mouth as a guide. This treatment by the stomach pump should be continued. The stomach should be well rinsed out at each sitting. This treatment was first advised by one of the Freiburg professors.

To get rid of remnants of food, emetics may also be employed. As the man's system is all the while running down, I am sustaining him on tonics. He takes an occasional powder of bismuth and tannin.

I had intended to show you another point in this case, but the rinsing out of the stomach has so sickened the man that he will have to leave the room. This point is with regard to the auscultation of the œsophagus when it is diseased. To accomplish this satisfactorily, the patient is told to take a sip of water and hold it in his mouth.



Then as he swallows it place your ear at the left side of his neck and listen. You will hear a sound which may teach you a great deal. Then place your ear on the left side of the spine and listen while he takes another swallow; then listen again lower down the spine.

Now, the bolus of food, when passing down the œsophagus in health, gives forth a peculiar set sound. In disease the sounds are of course different. There may be an impediment to the descent of the ovoid bolus for such is the form which the mass of food assumes at some point and of course that obstruction should be noted, and also the point at which it occurs. Again, the bolus may give forth a splashing, or sprinkling sound. Again, by placing the ear at different positions, the direction which the food takes as it descends may be noted. In some diseases of the adjacent viscera, the œsophagus may be pushed out of its proper line to one side or the other. This distortion of the line always occurs in curvature of the spine and is very often produced by the presence of thoracic tumors and aneurisms. The œsophagus in this case, when I examined it yesterday, seemed to be altogether normal.

## ORIGINAL ARTICLES.

### EXTIRPATION OF THE SPLEEN.

A paper read before the Chicago Medical Society.

BY

G. C. PAOLI, M.D.

The reason for presenting this paper is as follows:—The *Chicago Tribune* reported a case of extirpation of the spleen, performed by a certain surgeon of this city. As the reporter of the said paper is not acquainted with the subject except through such information as he gained from the operator, he cannot form any opinion on it. As the matter has been called attention to, I thought I would offer some facts which are of interest as bearing on the subject. The operation referred to above was not a success, the patient dying a few hours after its occurrence.

The spleen being an organ with the functions of which we are wholly unacquainted, and of whose necessity in our organization we might—on the whole—almost be tempted to doubt, as its removal from animals, and even men, as has been shown by actual experiments, does not have any sensible effect upon the integral functions of the body after the necessary consequences of such an operation are once safely passed through. It is not surprising, therefore, that its diseases must be very imperfectly understood. No clear, decided symptoms of any disease of the spleen—so that it can with certainty, be considered an independent disease—have as yet been satisfactorily demonstrated; and it is the disorders of this organ which appear as accompanying symptoms of other universal or local diseases (for instance, the typhus fever and those maladies belonging to the same class; the Bright's disease, and fever and ague,) which have hitherto excited any considerable attention, although the relations in which

these splenic affections stand to the co-existing disease cannot as yet be considered as sufficiently clear; and it cannot positively be determined by any certain pathological process whether several pathological changes in the spleen which appear upon dissection are connected with co-existing diseases or not, as is also the case with certain disorders of other abdominal organs; for instance, the liver.

Under such circumstances it can easily be seen that the diagnosis of disorders of the spleen in living subjects must be extremely uncertain. The subjective symptoms which are received as signs of diseases in the spleen are principally obtained from the general organization, and are of such uncertain character that very little reliance can be placed upon them, as they do not differ from those phenomena which distinguish diseases of other abdominal organs; and even such symptoms, imperfect and unsatisfactory as they are, are often wholly wanting in cases where dissection or external examination of living subjects show the existence of diseases in this organ. Consequently, the principal method of diagnosis—that by which the so-called physical symptoms are obtained (which relate only to the form and size of this organ), is the only one upon which we can depend to enable us to determine the diagnosis of the disease.

The different modes of examination which here come under consideration are measurement, the touch and sight of the abdomen, and percussion of the region of the spleen. When the spleen is so affected that its circumference considerably extends beyond the normal state, so as to reach far below the lowest rib, it will not be difficult to arrive at a tolerably certain result by external examination, although the possibility of confounding these symptoms with those of diseases of other abdominal organs requires a careful examination. But when the increased size of the spleen does not greatly exceed the normal state it will be evident, on consideration of the organ's situation, that we cannot depend upon feeling, and that it must be very difficult to arrive at any certainty by percussion.

The greatest part of the spleen lies in the convexity of the diaphragm, and its ordinary length is from four to five inches, its breadth from three to four, and in its normal state it does not extend below the lowest left rib. The foremost part lies in contact with the stomach, which organ—from its containing several gases, is extremely variable in sound, on the application of percussion. But it is particularly the different shades of sound, perceptible in that part of the spleen lying within the diaphragm, which here come under consideration; and those which must pass through the diaphragm, the lower part of the left lung, and ribs, are only perceptible by very deep percussion; and it will be clearly seen that, in order to form any certain opinions of even a considerable alteration in the size of the spleen it must require an exceedingly acute ear, experienced in the practice of percussion.

While it is well that extirpation of the spleen has been tried, it is the generally received opinion that, when this organ has undergone pathological changes, the operation has been contra-indicated, and experience has taught us that the operation has not found any encouragement in the annals of surgery. As regards the accounts of extir-

pation of the spleen in past ages, they now seem to be recognized as merely fables. They may have extirpated the organ, but they do not tell us the fatal work. They also mention that they used hot iron as a means of destroying the organ. At the present time the partial excision of the spleen has been performed several times in cases where the spleen has protruded in wounds of the abdomen. Cases of this kind have been performed by the following surgeons: Clark, F. Home, Ferguson, Reese of New York, Adrian, Zacarilla, Leenhosek, Matthew, and Godwin Dorsey of Ohio, besides several other surgeons of this country.

Dr. Guittenbaum, in this country, performed the extirpation of the spleen on a young lady who was suffering from a hyperthropical spleen, which resulted in her death six hours after the operation. Dr. Gooch, of Great Britain, performed the operation successfully on a soldier who was wounded in the spleen. The renowned surgeon of France, Prof. Dupuytren, about forty years ago, performed the operation on forty dogs, of which twenty survived. Later the operation has frequently been successfully performed in Europe as well as in this country, viz.: Hunt, Dalton, and many others.

The purpose in making these comments is to call the attention of members of this society to this interesting subject, and thereby to possibly enlighten us on an operation, which at present has not taken a great place in the surgical records.

## HOSPITAL RECORDS.

### COLORED HOSPITAL, NEW YORK.

Reported by R. G. WIENER, M.D., House Physician.

CHAMBER'S MENINGITIS—SERVICE OF DR. SAMUEL WHITTALL.

W. J., 35, M., Lat. Light Brown. Admitted to Hospital Department of Colored Home, April 1, 1878. Family history indefinite.

Had usual diseases of childhood, malaria quotidian variety six years ago; rheumatism nine months ago; gives a well marked syphilitic history; initial lesion nine years ago; has general enlargement of glands; remains of eruption on chest and lower limbs. Has complained of severe headache for last six months; mostly frontal, pains worse at night, feels as if he had been struck in the head; sometimes pain has a peculiar boring character; during same time has had convulsions which would come on at intervals of one or two weeks at first, oftener of late; was able to tell when a convulsion would come on; commenced by making a queer noise, then foam at the mouth and then have a general spasm; would last ten or twenty minutes. Patient has noticed a failure in his eyesight for last two or three weeks; at first specks before his eyes, has been getting worse, at present cannot distinguish light from darkness.

For the four or five days preceding admission has had some diarrhoea.

On admission, patient is fairly nourished, complains of headache.



Has slight facial paralysis on left side; natural folds are almost absent, alæ nasi expanded, mouth drawn somewhat to right; tongue on protrusion, deviates to left. Pupils irregularly dilated and sluggish; left larger; slight arcus senilis; patient is blind; is lethargic, moans occasionally; very feeble grip. (Slight elevation of temperature.) P. 76, R 16, T. 99½. Urine non-albuminous. Lungs and heart healthy.

Diagnosis Cerebral Syphilis. Ord, Pot. Iod. gr. XXX t. i. d.

*April 10, 1878.*—Since admission has been improving, less headache; dilatation of pupils more marked, left much larger than right.

*April 13, 1878.*—Thinks he can distinguish between light and darkness; can tell when an object is placed before his eyes. Ord. Pot. Iod. increased to gr. 50 t. i. d.

*April 20, 1878.*—Steady improvement; pupils almost regular. left responds normally, right somewhat sluggish. Can say whether hand is closed or open before his eyes, has no headache.

*May 9, 1878.*—To-day can distinguish black from white.

*May 20, 1878.*—Walks about ward with aid of stick.

*June 3, 1878.*—Patient has had three convulsions this evening slight facial no general paralysis; no loss of sensation; some increase in reflex excitability, pupils irregular and sluggish. Urine slight trace of albumen. Ord. Ol. Tiglii M. iij, which operated freely.

*June 4th, 1878.*—Has had thirty general convulsions in last twelve hours; breathes stertorously; is unconscious; complete loss of reflex action and sensibility; general paralysis; pupils moderately but equally contracted; died at 12.45 P. M., after having had the twenty-fifth convulsion.

Autopsy twenty-six hours after.

Body well nourished; rigor mortis marked. Brain: calvarium thicker than usual.

Upon removing the calvarium the dura-mater covering the anterior portion of the anterior lobes of the cerebrum was found to be discolored, having a brownish tint; it formed nipple-shaped processes extending downward on either side of the crista galli. This portion of the dura-mater was so firmly adherent to the brain that the two were removed together. In separating the membrane from the skull the crista galli and the cribriform plate of the ethmoid were found to be destroyed. The dissection opened down into the superior fossa of the nose, the mucous membrane of which appeared to be healthy. The upper portion of the body of the sphenoid was also greatly attenuated, and was separated from its position in removing the dura-mater, thus exposing the sphenoidal cells. Upon section the dura-mater and its diseased portion was greatly thickened—somewhat softened, yellowish brown, and intimately united with the pia mater. The brain substance was markedly softened and the olfactory bulbs could not be distinguished.

The optic chiasm was swollen to fully 3 times its normal size; softened and less white than usual. The optic tracts and nerves were healthy in appearance. Other portions of brain healthy, some serum in ventricles. A microscopical examination of a section of the

chiasm revealed granular and fatty matter, granular corpuscles and a few small round cells.

*Lungs*.—A few chronic adhesions at apex of right lung. Both pleural cavities partially filled with bloody serum. Lungs moderately emphysematous; markedly oedematous.

*Heart* in systole. Valves normal.

*Spleen* engorged with venous blood.

*Stomach*.—Mucous membrane non-adherent; intense venous congestion; cutices somewhat thickened; slight pyelitis.

*Suprapubic*.—No abnormality.

Brain,	—
Heart,	12
Right Lung,	—
Left Lung,	—
Spleen,	—
Liver,	—
Right Kidney,	—
Left Kidney,	—

## PERISCOPE.

ON THE CAUSES OF BOWEL OBSTRUCTION. BY JONATHAN HUTCHINSON, F. R. C. S.

1. When *a child* becomes suddenly the subject of symptoms of bowel obstruction, it is probably either intussusception or peritonitis.

2. When *an elderly person* is the patient, the diagnosis will generally rest between impaction of intestinal contents and malignant disease (stricture or tumor).

3. In *middle age*, the causes of obstruction may be various; but intussusception and malignant disease, both of them common at the extremes, are now very unusual.

4. Intussusception cases may be known by the frequent straining, the passage of blood and mucus, the incompleteness of the constipation, and the discovery of a sausage-like tumor, either by examination *per anum* or through the abdominal walls.

5. In intussusception, the parietes usually remain lax, and there being but little tympanites, it is almost always possible, without much difficulty, to discover the lump (or sausage-like tumor) by manipulation under ether.

6. Malignant stricture may be suspected when, in an old person, continued abdominal uneasiness and repeated attacks of temporary constipation have preceded the illness. It is to be noted also that the constipation is often not complete.

7. If a tumor be present and pressing on the bowel, it ought to be discoverable by palpation, under ether, through the abdominal walls, or by examination by the anus or vagina, great care being taken not to be misled by scybalous masses.

8. If repeated attacks of dangerous obstruction have occurred, with long intervals of perfect health, it may be suspected that the patient is the subject of a congenital diverticulum, or has bands of adhesion, or that some part of the intestine is pouched and liable to twist.

9. If, in the early part of a case, the abdomen becomes distended and hard, it is almost certain that there is peritonitis.

10. If the intestines continue to roll about visibly, it is almost certain that there is no peritonitis. This symptom occurs chiefly in emaciated subjects; with obstruction in the colon of long duration.

11. The tendency to vomit will usually be relative with three conditions and proportionate to them. These are (1) the nearness of the impediment to the stomach, (2) the tightness of the constriction; and (3) the persistence or otherwise with which food and medicine have been given by the mouth.

12. In cases of obstruction in the colon or rectum, sickness is often wholly absent.

13. Violent retching and bile vomiting are often more troublesome in cases of gall-stones or renal calculus, simulating obstruction, than in true conditions of the latter.

14. Faecal vomiting can occur only when the obstruction is moderately low down. If it happen early in the case, it is a most serious symptom, as implying tightness of constriction.

15. The introduction of the hand into the rectum, as recommended by Simon of Heidelberg, may often furnish useful information.

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MEMORANDA FOR TREATMENT OF CASES OF INTESTINAL OBSTRUCTION.—BY JONATHAN HUTCHINSON, F.R. C.S.

1. In all early stages, and in all acute cases, abstain entirely from giving either food or medicine by the mouth.

2. Use anæsthetics promptly. Put the patient under the full influence of ether; examine the abdomen and rectum carefully before tympanites has concealed the conditions; administer large enemata in the inverted position of body; and, if advisable, practice abdominal taxis. If you do not succeed at first, do it repeatedly.

3. Copious enemata, aided perhaps by the long tube, are advisable in almost all cases, and in most should be frequently repeated.

4. Fluid injections may be sometimes replaced by insufflation of air in cases of invagination, since air finds its way upwards better, and is more easily retained. It is, however, somewhat dangerous, and has, perhaps, no advantage over injections with the trunk inverted.

5. Insufflation is to be avoided in all cases of suspected stricture since the air may be forced above the stricture, and there retained.

6. Saline laxatives are admissible in certain cases where impaction of faeces is suspected, and in cases of stricture where fluidity of faeces is advisable.

7. Opium (or morphia) must be used in proportion to the pain which the patient suffers. It should be administered by the rectum or hypodermically, and should be combined with belladonna. If



there being much pain or shock, it is better avoided, since it increases constipation, and may mask the symptoms.

8. A full dose of opium administered hypodermically will put a patient in a favorable condition for bearing a prolonged examination under ether, and attempts at abdominal taxis.

9. In cases of uncertain diagnosis, it is better to trust to the chance of spontaneous cure or relief by repeated abdominal taxis, than to resort to exploratory operation; or, in desperate cases, iliac enterotomy should be done. Operations for the formation of an artificial anus in the right or left loin may be performed whenever the diagnosis of incurable obstructive disease in the lower bowel is made.

10. The operation for the formation of an artificial anus through the anterior part of the abdominal wall and into the small intestine should be resorted to only in certain cases of insuperable obstruction, in which the seat of disease is believed to be above the cæcum.

11. In all cases in which the precise seat of disease is doubtful, but the large intestine is suspected, the *right* loin should be preferred. If the colon here be found to be empty, the peritoneum may be cautiously opened, and a coil of distended small intestine brought into the wound.

12. My last suggestion as to the treatment is one which, speaking as I do in a medical section, I feel some delicacy in making. It is, however, I believe, a very important one, and it is this, that cases of mechanical obstruction are really surgical and not medical cases. They require manipulative measures both for diagnosis and for treatment, and they require them early. It is difficult to explain why it has come about that, as a rule, a physician is called in first, and nothing but drug treatment usually adopted in the early periods; and it is, I am convinced, much to be regretted. The surgeon is but too often asked to see the case only in the last stage, when it is thought that perhaps an operation may be desirable. At this period the abdomen is distended, and an accurate diagnosis impracticable; but, what is worse, the stage at which abdominal taxis is most hopeful has passed. My remarks do not, of course, apply when the medical attendant possesses the knowledge and exercises the functions of both branches.—*Brit. Med. Jour.*

#### OVARIOTOMY DURING PREGNANCY. BY HERWOOD SMITH, M.A., M.D.

The author narrated the case of a woman, aged 25, pregnant with her fourth child, the subject of an ovarian cyst, noticed after her previous confinement seven months before, who came under his notice on March 25th, 1878. He removed the tumor antiseptically on June 12th, the patient then being about four months and a half pregnant. The adhesions were strong to the anterior abdominal walls. The pedicle was tied with silk; and she left the hospital in twenty-eight days, the pregnancy not being disturbed. The temperature never rose above 99.8° Fahr. He justified the operation by the consideration that, with any other method, whether by letting it alone, or tapping, or the induction of premature labor, the cyst would still

be left to be dealt with, and there would have still been risk of miscarriage; and also by the fact that Spencer Well's statistics of ovariectomy, during pregnancy, had given such good results. His prognosis was verified by the favorable issue. Mr. E. Smith (Bolton did not consider the patient would be worse off if she aborted, had the operation not been performed.—*Dr. Griffith* (Swansea) wanted to know if it were conjunctive that cysts burst during labor; and asked what was the risk of allowing the patient to go her full time. He drew attention to the frequency with which patients menstruated eight or nine days after ovariectomy.—*Dr. Marion Sims* said that his second case of ovariectomy was pregnant three months.—*Dr. H. Smith*, in reply, said that the so-called menstruation arose from a general hyperæmic condition—from the super-abundant energy of the circulation that had, before the operation, been utilized in supplying the tumor with blood; and that, on the removal of the tumor, the heart did not all at once accommodate its work to the lessened range. Hence also arose the albuminuria and the presence of urates on the third day after ovariectomy. He considered in his case, as the tumor was large and growing, that there was less risk to the patient from the operation than if she had been allowed to go her full time.—*The Brit. Med. Jour.*

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NOTE OF A CASE OF PULMONARY PHTHISIS WITH LARGE VOMICA, IN WHICH THE CAVITY HAS BEEN TAPPED WITH GOOD RESULT.—BY C. T. WILLIAMS, M.D., ETC.

In this case, in which the interest is apparent, and in which the results thus far have been remarkably good, the history is not yet complete; but the importance of the case seems to justify a preliminary note of its clinical features.

The patient was a man aged 28, who had suffered from consumptive disease of both lungs for several years. During the last six months, a large cavity had formed in the base of the left lung, as well as some smaller ones in the upper lobe. The cough was most harassing, and often followed by vomiting; the expectoration profuse (about two pints a day) and exceedingly offensive, causing loss of appetite and diarrhœa not only to the patient, but to his nurse and attendants; and a high afternoon temperature was maintained for several months. Microscopical examination showed also that lung-disintegration was steadily proceeding. The diagnosis was a large and superficial basic cavity in a contracted and fibrotic lung, with pleura adherent in front.

On June 19th, at my request, Mr. Erichsen, assisted by Mr. Marcus Beck, introduced a large sized trocar and canula between the seventh and eighth ribs, and successfully tapped the cavity. The operation was attended by considerable difficulties on account of the toughness of the fibrotic lung, and was followed by cutaneous emphysema and limited pneumothorax, the former subsiding in a few days. The relief was immediate. About two pints of fœtid pus were evacuated, the expectoration was reduced to two or three ounces a day, all fœtor

ceased, and both pulse and temperature fell; and, though nearly a month has elapsed since the operation, the progress has been in every way satisfactory. The discharge is slight, and the cavity has been several times washed out with disinfecting fluids.

The editor of the *British Medical Journal* makes the following remarks on this case :

In another column we publish a preliminary note by Dr. C. Theodore Williams, of a case in which a large cavity of the lung has recently been tapped and locally treated with great advantage by Dr. Williams and Mr. Erichsen. This mode of treatment has once or twice been suggested by physicians, especially by Dr. Ramadge in this country; and more recently it has been practised by Dr. Pepper, in America, and in Germany by Dr. Mosler, of Greifswald, and others. A recent thesis by Dr. F. Arjo, on the subject, discusses the various methods by which it has been attempted to carry out the operation; by catheterisation of the air-passages, by large thoracentesis, by aspiration, by caustic, and by galvano-caustic, which is prepared by Koch, of Berlin. The practise is one of great rarity, and possibly only suited to exceptional cases, such as those of fetid expectoration. In any case, however, it appears to offer clinical resources which may well be borne in mind.

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#### RARE DISPLACEMENT IN FRACTURE OF FEMUR.

Dr. Edward W. Collins laid before the Society, the thigh bone of a soldier, who had been struck by a wagon and flung against a wall, thus sustaining a severe compound fracture of the right femur. He lost much blood, and was in profound collapse when brought to the hospital. Life was sustained by hypodermic injections of ether, etc. There was a feeling of succussion in the wounded limb owing to the presence of blood and air in the soft parts. The bone was broken about the junction of the lower with the middle third. The obliquity of the fracture ran downwards and backwards, the upper fragment being consequently displaced inwards, and the lower one upwards, outwards, and forwards. The operation was performed at 1 A. M., the method of mixed narcosis being adopted to render the patient anæsthetic. Amputation was practised at a high level, but so far the patient was progressing well.

In commenting on the case, Dr. Bennett said that there was only one specimen of such a displacement of the fragments in the museum of the School of Physic in Ireland.—*The Brit. Med. Jour.*

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#### CORRESPONDENCE.

##### THE TREATMENT OF CHRONIC ULCERS AND SUPPURATING WOUNDS.

*Editors Hospital Gazette :*

GENTLEMEN:—In view of the considerable success which has attended the treatment of all suppurating surfaces at the Out-Door Department of Bellevue Hospital, within the last year, I consider that it



would not be amiss to give briefly the plan generally pursued. This plan answers equally well for ulcers of all kinds, and consists of thoroughly cleansing the surface by the application several times a day, for 2 or 3 days, of 15 to 25 % Borated Cotton, the strength to be regulated according to the tolerance of the patient; this is followed by the constant application of Borated Cotton 10 %, twice a day, taking care not to remove, when dressing the wound, the fibres which have closely adhered to the surface of the sore. Within a week, the ulcer will assume a healthy action, and granulation will appear, and in the course of 2 to 6 weeks cicatrization will have been completed. When the edges are hard and inverted, a trimming with the knife will be necessary before beginning the treatment, and when a varicose condition of the veins of the leg exists, it is imperative that an elastic stocking or strapping, two or three times a week, be added to the treatment. In those cases where pain exists to any extent, dusting the surface daily with powdered iodoform and dressing with a layer of Borated Cotton 10 % has proved very beneficial. Cases of ulcers of equal size on both limbs one treated by iodoform alone, the other by the Borated Cotton, the latter method has invariably proved the better. The Borated Cotton used, is that made by Mr. C. Am. Ende, of Hoboken, N. J., from whom we get it of any desired strength.

Hoping your readers may give this simple plan a trial, I remain,

Yours, truly,

J. J. HENNA.

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## NEWS ITEMS AND NOTES.

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**What Most Women Need.**—Discussing the difficult problem of female education, the *Nation* pertinently remarks, that what most women need next after health and power of acquisition, and the confidence which springs from having acquired something, is a tolerable amount of administrative capacity. Housekeeping is administration on a small scale. It includes the faculty of getting the most for one's money, and managing servants and children. If it were likely to be a man's vocation to the extent to which it is likely to be a woman's, he would undoubtedly be prepared for it by some sort of apprenticeship. He would have to learn in some subordinate capacity the proper mode of buying and preparing food, and of procuring and taking care of furniture and clothing, and of ruling servants. He would be trained to receive company by some experience of the art of entertaining, both in its material and its æsthetic aspect. No one would ever guess, however, from an inspection of an average school course, that a girl was to be the head of that most complex result of civilization, a modern household, and with its thousand duties, responsibilities and relations.—*Scientific American*.

**Absorption of Quinine by the Placenta.**—M. Parak has published a series of researches relating to sulphate of quinine, from which it results that this salt passes slowly through the placenta, since its presence is very constantly in the urine of newly born children when the administration of the medicine has preceded delivery by an hour

and a half. A dose of seven grains and a half, and often a little less, suffices to prove the passage of quinine through the placenta. Sulphate of quinine, administered to parturient women, appears to exercise an injurious influence on new-born children. This is seen in the greater frequency of icterus, and in the notable wasting of the children during the first days which follow birth. This medicine should not, therefore, be employed as an oxytocic.—*Brit. Med. Jour.*

**Orthopædic Surgery in London.**—Mr. Richard Davy has been elected surgeon in charge of the orthopædic department at the Westminster Hospital. Lectures on the surgical and mechanical treatment of deformities will be given during each summer session.

**Deaths from Goitre.**—An extremely interesting monograph on *Death from Goitre and the Radical Cure of Goitre*, by Professor Rose, just published by Hirschwald, throws a new light upon the cause of sudden deaths in goitrous persons which have been frequently observed, and sometimes in the course of operation. In three such cases, Rose has found that the pressure of the increased thyroid has led to the fatty degeneration of the cartilaginous rings of the trachea, thus transforming the rigid and resisting cylinder of the air-tube into a membranous and flaccid canal. A sudden movement of torsion or of flexion of the head suffices, then, to make an elbow in the tube and flatten its lumen. This change is also accompanied by fatty degeneration and dilatation; and thus we have here all the conditions of sudden death, especially under anaesthesia or during the brusque movements of the head and neck while an operation is being performed.—*The British Med. Jour.*

Dr. Washington L. Atlee, of Philadelphia, died at his residence on Arch street, on the 6th instant; his malady was cancer of the stomach. Dr. Atlee was born at Lancaster, Pa., on February 22d, 1808, and was, consequently, in his seventy-first year. He was the youngest son of William Pitt Atlee, and grandson of Hon. William Augustus Atlee, one of the early Judges of the Supreme Court of Pennsylvania, his term extending from 1777 to 1793. His maternal grandfather was Major Washington Light, a soldier in the army of the Revolution. At the age of sixteen, Dr. Atlee entered the office of his brother, Dr. John L. Atlee, at Lancaster, and subsequently entering Jefferson College, with the third class enrolled at that institution, graduated in 1829. He then returned to Lancaster county, where he practiced his profession and ardently pursued the study of botany and science. In 1849 he removed to this city, and, by invitation, filled the chair of medical chemistry of the Pennsylvania College until 1853, when, his private practice demanding much of his time, he resigned that position. He was an active member of the State and County Medical Societies and the American Medical Association. A brilliant extempore speaker and an able debater, his weight was always cast in favor of a higher medical education and a broad and liberal construction of the rights and duties of medical life. As a practitioner he was most famous for his advocacy of the difficult ope-

ration of ovariectomy. Commencing its performance and defending its propriety at a time when hardly another surgeon in the land dared to support him, he vindicated its merits by his success in more than three hundred cases.

Dr. Atlee lived to see the practice he sought to establish generally recognized, by many of those, indeed, from whom he encountered the greatest opposition. As a writer, he contributed ably to all the current medical and surgical magazines. The prize essays of the American Medical Association in 1853 included one written by him, and quite recently (1872) he summed up his extended experience, in a volume on ovariectomy. The loss to his profession, which he adorned, and to society, where he was esteemed and admired, is a severe one.—*Med. and Surg. Rep.*

**“Similia” on a Rampage.**—A Chicago homœopathic doctor reports in the New York *Homœopathic Times* a case of renal calculus which refused to yield to nux vomica, colocynth and other remedies, though they were given, we suppose, in doses potentially annihilated after the orthodox formula of Hahnemann. The patient being “frantic with pain” “he gave moderately of chloroform,” and then a grain of morphia at a dose! After this she rested quietly for a time, but only for a time. A tobacco poultice (similia?) relieved the strangury. He next inserted a catheter with an aspirating syringe attached, and pumped out the bladder. He adds: “I continued the pumping process, exhausting the bladder and producing a partial vacuum, with perhaps from three to five pounds pressure, when suddenly the patient made a quick, sharp outcry and said, ‘There it comes, thank God!’” The calculus was drawn into the bladder. This is all very good, and the process, which he compares to sucking an oyster out of its shell, may be worthy of further trial. But we fail to see where the “similia” comes in. He pumped the wrong way for homœopathy.—*Pac. Med. Jour.*

**A Word About Dr. Mary Walker.**—This restless little spirit has done more to bring derision and reproach upon female physicians than all the women-haters of the other sex collectively. Her whole life seems to have been devoted to a heroic support of the great principle of—pantaloons. No one ever thinks of Dr. Mary Walker without an imaginary glance of the eye towards her feet. Her head is never thought of. Her stepping out will be an era in female progress. If she could be induced to retire into a convent it might be a blessing to the church, and it certainly would be a great benefit to the cause of female education.—*Pac. Med. Jour.*

**How to Kill a Tapeworm in an Hour.**—Kousso and kamali are expensive drugs, nauseous to the taste, not always effectual, and requiring several days to effect the death of the worm. Dr. Karl Bettelheim, of Vienna, narrates in the *Deutsches Archiv*, just received, a heroic method and nearly sure cure in the short space of time of three-quarters of an hour to two hours. It is this: he inserts a tube in the œsophagus, to the stomach, and pours down from 200 to 400



... as a very concentrated decoction of pomegranate root, having previously had his patient fast for twenty-four hours. The worm is stupefied, and passed, head and all, to a certainty; the patient has no sickness of the stomach, and no nauseous swallowing to do; and the drug is cheap.

**Inebriety in American Women.**—The editor of the *Journal of Laryngology* says, in a late number:

By many observers it is thought that the peculiar mental and nervous strain incident to the rapid changes of circumstances and conditions common to American women predisposes them to inebriety. This is true to a limited extent only; relief from this condition is more often sought in narcotics, such as opium, etc.

From a general survey of the more active causes, it is evident that inebriety exists to a considerable extent among all classes of women in this country; also, that it is less prominent than in men, but more precipitate and rapid in its progress.

**Prevention of Hemorrhage after the Use of Esmarch's Bandage.**—It is generally regarded as one of the chief drawbacks to the employment of Esmarch's bandage that hemorrhage, often of an exceedingly stubborn character, is so apt to occur after operation. M. Riedinger has sought to avoid this unfortunate complication by the use of the induced current. This appears to possess the property of arresting consecutive hemorrhage even when ischaemia has existed some time, a result which seems to depend upon the contraction of the muscles and of the vascular walls. R.'s procedure is as follows: Having finished the section of the tissues and tied all attainable vessels, he submits the wound to the influence of the induced current, the electrode being armed with a sponge, for some moments, and then, removing the tube of the Esmarch's apparatus, secures those vessels which continue open. His success in numerous cases has been very satisfactory.—*Le Mouvement Med.*, 1878, & *Phila. Med. Times*.

**Length of Life of English Physicians.**—The list of deaths of medical men in England contained in *The Doctor* for August, furnishes the ages of twenty-six decedents. The youngest was thirty-two and the oldest eighty-seven. Four were between seventy and eighty, and four between eighty and eighty-seven. The average of the whole number was  $56\frac{1}{2}$  years.

**Notice to Readers.**—We would respectfully ask those gentlemen who receive the GAZETTE for the first time with this number, to give it a careful examination; and, in case its merits may commend it to their favorable consideration, we should be pleased to receive a remittance for the amount of subscription. We would also beg to call attention to our advertisement on page 10.

# THE HOSPITAL GAZETTE

AND

## ARCHIVES OF CLINICAL SURGERY.

A WEEKLY JOURNAL OF MEDICINE, SURGERY AND THE COLLATERAL SCIENCES.

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### LECTURES.

#### LECTURES ON INSANITY.

Delivered at the College of Physicians and Surgeons, New York.

BY

E. C. SEGUIN, M.D.

Clinical Professor of Diseases of the Mind and Nervous System.  
(Reported For THE HOSPITAL GAZETTE.)

#### LECTURE VI

**PATHOLOGICAL ANATOMY OF INSANITY—1ST. THAT OF ACUTE RECENT CASES. 2ND. OF CHRONIC INSANITY AND TRUE DEMENTIA. 3RD. OF GENERAL PARALYSIS. 4TH. OF SYPHILITIC INSANITY.**

GENTLEMEN:—We will to-day take up the subject of the pathological anatomy of insanity, and I must preface my remarks on that subject by saying that we are not yet able to give the true pathology of very many cases. There is no apparent correspondence between the symptoms and the lesions except in a few instances. Thus we may have hyperæmia of the brain with either mania or melancholia, and the kind of mental symptoms exhibited seems to depend very largely on the habits and previous condition of the mind of the patient and not on the lesions.

I shall divide the consideration of the pathological anatomy of insanity into four categories: *1st, that of acute recent cases. 2d, of chronic insanity and true dementia. 3d, of general paralysis; and lastly, 4th, of syphilitic insanity.*

If we examine the brain of a patient who has been the subject of *recent mental disease*, we find chiefly vascular changes, the nerves and ganglion cells having undergone little if any appreciable alteration. We find either anæmia or hyperæmia, and there is no definite relation between these lesions and the psychical symptoms exhibited during life.

The evidences of anæmia are as follows: There is a pale appearance of the membranes and of the brain itself, and an accumulation of fluid in the sub-arachnoid spaces, more especially in the vicinity of the crura cerebri, and medulla oblongata. The ventricles are

more or less full of serum. Mechanically, the total contents of the cranium are invariable, but the different ingredients vary in their relative proportion at every moment of life. When we have a predominance of one element there must be a diminution of the others. Thus when anæmia is present there is less blood in the vessels and the space left vacant must be filled with something else, and it is usually an excess of cerebro-spinal fluid that takes its place. Conversely when there is hyperæmia there is a corresponding diminution of cerebro-spinal fluid. The excess of serum is found in the ventricular cavities and around the bloodvessels. In cutting into an anæmic brain we meet with the condition known as wet brain, because fluid oozes from the hemispheres as the section is made.

Microscopic examination shows some cells to be more granular than normal, and a few granular bodies in the perivascular spaces, but unless the patient be old, there are no particular changes in the brain tissues or in its bloodvessels.

Hyperæmia is found in two forms, either present at the time of autopsy, or in the shape of vestiges of a previous congestion. The evidences of present hyperæmia are injection of the meninges and of the brain. The smaller vessels are seen to be filled with blood. In deciding as to the presence of hyperæmia you had better ignore the veins on the surface of the hemispheres as they are always dilated with blood no matter what the patient dies from, especially in the posterior parts. It is a mechanical condition of hypostasis, produced by lethal contraction of the arteries and the position of the body. In real hyperæmia we see numerous blood-specks in the white tissue when the brain is cut into. The best place to observe it is in the centrum ovale majus. The small bloodvessels are cut and the blood oozes out. Numerous points of blood coalesce, and after the passage of the knife a sheet of blood is left on the surface formed by the droplets running together. I would warn you against examining the brain a little while after the skull has been opened, for many small vessels seem congested after they have been exposed to the air. The cerebro-spinal fluid is reduced in amount, the convolutions are pushed up against the dura mater and are dry, and we find very little fluid in the sub-arachnoid spaces. The quantity of this fluid varies inversely as to the amount of blood.

Microscopical examination shows other evidences of hyperæmia, and especially reveals the traces of old congestion. The spaces normally existing around the bloodvessels in the nervous centers are called perivascular canals or spaces. These contain lymph and are in communication with the sub-arachnoid spaces of the cord and brain, and indeed the whole lymphatic system. We find distention of the perivascular spaces in chronic hyperæmia; a very small artery will be surrounded by a large space giving rise to the appearance in a section called the "*cat o' tail*." The mechanism of the production of these spaces is as follows: The bloodvessels become much distended with blood, swell, and push away the surrounding lymphatic fluid and cerebral tissue. Just before death the dilatation ceases and the result is, on the artery becoming smaller, an apparently small



artery with a large hole surrounding it. Another evidence is the deposit of pigment in the perivascular spaces. It is composed of grains or granules of hæmatoidine and may actually be found in crystals, but not commonly.

Again, we may find hæmorrhages in the perivascular canals. At a given point the artery has ruptured and some of its contents have escaped into the space around, in other words we have a small dissecting aneurism. This condition is quite commonly found in many cases of insanity. We may also find hæmorrhages in those portions of the brain substance removed from the larger vessels, but we may also find these lesions in cases where no mental symptoms were exhibited during life. In simple acute insanity the other anatomical elements are not much affected. The ganglion cells may be a little granular, but there is no lesion of the connective tissue.

Once in a while we see cases of insanity where no lesions at all are found even after close inspection; the vascularity seems normal and the cells and nerve tubules are not at all involved. It is highly probable that in these cases marked local or general hyperæmia or anæmia existed during life, but not for a sufficient time to dilate the perivascular channels or cause transudation of coloring material from the blood.

I may add that it is my opinion there are in these cases delicate morbid changes in the nervous elements, which we cannot now recognize with our coarse methods of microscopic and chemical analysis.

We will pass now to the discussion of the lesions of *chronic mania and dementia*.

In the first place, we find in the brain a varying quantity of blood, sometimes too much, sometimes too little, depending a great deal upon the general condition shortly before death. We have pronounced atrophy, and also "wet brain," these two conditions usually going together. There are evidences of past hyperæmia, that is, the "*état criblé*" and granular deposits of hæmatoidine near bloodvessels. The bloodvessels are fatty or atheromatous, and may present a wavy or snake-like appearance. The membranes of the brain are usually diseased and often there is adhesion of the pia to the cortex cerebri. The nervous elements are likewise degenerated and atrophied.

The atrophy of the brain is chiefly marked in its anterior parts. The convolutions appear small in proportion to the duration of the disease. In cases of twenty years' standing they often appear like large worms. The pia mater and dura mater are thickened and there is accumulation of the cerebro-spinal fluid under the arachnoid in conformity with the law that the absolute contents of the cranium are invariable. There occurs, therefore, a compensatory œdema.

Patients under twenty-five, seldom have true chronic insanity, and when they do the changes in the bloodvessels are not marked, but in older patients the vessels become fatty and atheromatous. The capillaries show fatty degeneration and they show it in a peculiar way, the nuclei of the cells distributed along their walls being first affected. In the arteries the muscular coat becomes fatty. Through large tracts of brain we find granular and amyloid bodies varying in size.

Thickening and adhesion of the meninges is quite common. The arachnoid is opaque, particularly along the bloodvessels, but the opacity is not due to an accumulation of fluid underneath, for when these spots are pricked, the milky appearance does not vanish. These opaque spots are often numerous and discrete, but sometimes the whole arachnoid over the cortex appears affected. In consequence of this state of chronic inflammation, there is produced adhesion between the pia mater and the convolutions, and when we attempt to raise the membrane some of the brain tissue is torn off with it. In the normal condition the pia mater peels off cleanly from the parts beneath it, but in chronic insanity, and in syphilitic insanity likewise, a thin layer of the cortex cerebri being adherent is lifted up. This phenomenon has received the name of *decortication*. The immediate cause of decortication is complex. In the first place the chronic inflammatory change in the arachnoid has extended to the delicate connective tissue and the bloodvessels which make up the pia mater, and thickening with abnormal adhesion has occurred in the perivascular tissues immediately about the innumerable arteries which pierce the cortex vertically. Second, it is probable that repeated fluctuations in the blood-supply of the cortex has produced a degree of softening or degeneration in the middle stratum of the cortex.

The nervous elements are likewise degenerated. The normal amount of pigment in the ganglion cells is increased. In extreme cases there is no difficulty in detecting the general pigmentation with the unaided eye. There is likewise atrophy and ultimately transformation of ganglion cells into masses of granules without nuclei; constituting the so-called granular bodies. French pathologists have explained the formation of granular bodies in the nervous tissues, by supposing that fatty molecules derived from degenerating nervous elements aggregate to form these masses. The German theory is a better one, and, I think, can be demonstrated by observing the various steps of the process. A granular body, this theory claims, is always derived from a pre-existing nucleus or cell in the tissue; it may be a ganglion cell or a connective tissue cell. The formation of the amyloid bodies which are so numerous in degenerated nervous tissue, is well explained in like manner: the amyloid material accumulates in a pre-existing cell. Besides, in a few specimens we meet with multiplication of nuclei in ganglion cells; and in very ancient cases of dementia, the remnant of ganglion cells have been found calcified. A few years ago, the pathological world was startled by the "discovery" in the brains of insane patients of spherical fatty masses, many of them large enough to be seen with the naked eye. These were produced by prolonged immersion of the specimens in alcohol; and these beacons in the path of future students have been humorously designated as "*corpora Grayi*."

In many cases we find inflammation of the epithelial structures and of the neuroglia in the ventricles, little pearl-like elevations like papillæ on the surface, usually visible to the naked eye. They are the result of chronic inflammation of the *ependyma ventriculorum* and the lifting up of its epithelium by masses of new cells.



The pathological changes in *general paralysis* are similar in kind, the differences being a different distribution of the lesions and a predominance of inflammatory changes. The atrophy, "wet brain" condition, etc., are not so widely distributed in the brain tissue, but are often localized in particular regions. The capital difference is this, there is probably, primarily, an inflammatory action taking place in the neuroglia of the brain. The degenerative changes are secondary, both in point of time and importance.

The arachnoid is usually opaque, in patches or diffusely, and the occurrence of *decortication* shows that chronic inflammation has caused adhesion to the cortex.

In general paralysis we more often find ventricular changes. One French observer, Joire, described these granular changes as characteristic of general paralysis, but, as I have said before, they are found in chronic mania,

Special attention must be paid to the connective tissue. We find it hard to the finger, especially in certain districts. In those cases where the motor symptoms have predominated, the lesions are principally found in the median parts of the hemispheres, in the so-called motor zones. In cases where the psychical symptoms occur early and preponderate, the induration and atrophy are more marked in the anterior portions of the frontal lobes. In cases with aphasiform attacks, changes gross or microscopic, are seen in the island of Reil and the third frontal convolution of the left side. It is very probable that the question of localization will receive great impetus from the study of these cases.

In the early stages, alterations in the vascular system are not so marked as in other cases. The connective tissue throughout the brain shows signs of inflammatory action. The vessels are enlarged portions and thickened, and we find spider cells in the tissues. These are small masses of protoplasm, with or without a nucleus, which send out numerous fine processes. They have been demonstrated in many other conditions, which are held to be inflammatory. I have found spider cells in sclerosis of the posterior columns of the cord, in lateral sclerosis, disseminated nodular sclerosis, myelitis, etc. They differ from ganglion cells. These are larger, have distinct nuclei and nucleoli, and their processes are in quite regular number, and extend in definite directions. Spider cells are not new formations, but result from increased activity and hypertrophy of nuclei in the neuroglia.

In the later stages the ganglion cells degenerate, the nerve fibres undergo atrophy, shrinkage of the brain occurs, and we finally have a condition very similar to that in common dementia.

In a number of cases the lesions are in the spinal cord as well as in the brain. When lesions exist in the cord they are more particularly situated in the posterior columns, as in locomotor ataxia. There may be sclerosis of various degrees, with numerous granular and amyloid bodies. Occasionally the whole of the cord is involved. In some cases there is a continuation of the ventricular inflammatory changes. This is called peri-ependymal sclerosis, and results in a destruction of the central canal; epithelium in it is destroyed by the growth and



heaping up of young cells derived from pre-existing neuroglia nuclei. Round about it are signs of abnormal activity in the neuroglia.

In my description I passed from the cortex to the ventricle, but you must not infer from that, that the rest of the brain is healthy; it shows more or less sclerotic changes. A German author has recently called attention to changes sometimes affecting the hypoglossal nerve and the 3d, 6th and 7th nerves. It seems probable that the whole cerebro-spinal mass is the seat of changes, with foci at numerous points.

I have not yet mentioned in this connection a lesion of the dura-mater called pachymeningitis. Its relation to symptoms is inconstant, and we find it in various forms of mental disorder, notably in mania, general paralysis, chronic alcoholism. It is often called *pachymeningitis hæmorrhagica*. The appearances are thickening of the dura, especially on its inner surfaces in spots, or in large patches, over one or both hemispheres. Section through the thickened dura reveals alternate layers of tissue and of coagulated hardened blood. In a few cases death is caused by escape of blood through this barrier. In some cases the blood is almost fluid, and is prevented from inundating the inter-meningeal space by a thin layer of organized tissue. This first clot may be half an inch thick. An early stage of the disease (in alcoholism) shows an appearance of very slight elevation of cob-web-like vascular formation on the inner surface of the dura.

One theory of its production is that it arises from hæmorrhages on the inner surface of the dura mater and the subsequent organization of the clot in this location. Two or three years ago I did not believe this statement, and was prone to adopt Virchow's views that the inflammatory changes always occur first, and hæmorrhage second, but some recent experiments made abroad have altered my opinion somewhat. To-day I would teach an eclectic view. We may have primarily a hæmorrhage from the inner surface of the dura mater in the inter-meningeal space, and secondarily, organization of this blood into a membrane.

In the immense majority of cases, however, the inflammatory origin claimed by Virchow is demonstrable, especially if care be taken to study pachymeningitis from its beginning. A thin stratum of young tissue, derived from pre-existing connective tissue cells, and from leucocytes which have migrated from vessels, appears upon the inner surface of the dura. This, like all granulation tissue, is soft and very vascular, mere channels for blood existing in it. Probably by the motions of the brain within its membranes rupture of some of these blood-channels occurs and a sheet of blood spreads out *within* the new tissue. Successive growths of young tissue, with repeated hæmorrhages of variable size go to make the thick stratified masses we find post mortem. The hæmorrhage preceding the autopsy is sometimes fatal by invasion of the inter-meningeal space and compression of the nerves at the base of the brain and medulla.

It may not be ill to remark in this connection that sub-arachnoid hæmorrhage is not a frequent change in the brain of the insane. It and cerebral hæmorrhage, strictly speaking, may of course occur as complications.

In *syphilitic insanity* the lesions found bear some resemblance to those above described, yet careful observation points out numerous characteristic differences. In chronic syphilitic mania, dementia, and pseudo-general paralysis the membranes are usually diseased. The dura may be the seat of pachymeningitis, but syphilitic inflammation of the dura mater is not hæmorrhagic in character. There is thickening on the inner surface of the membrane in the shape of tumor-like patches. Section through these masses reveals a tough, whitish or even yellowish new formation, which the microscope shows to be made up of small young cells, closely packed, and the growth is only slightly vascular. In the older (yellowish) parts of the humor many of the cells have undergone fatty metamorphosis and even destruction—caseous degeneration. The softer meninges are also affected in these forms of mental disorder, and we meet with opalescent spots in the arachnoid, thickened and adherent pia, decortication; these lesions being more in patches and less diffused than in non-syphilitic lesions.

The cerebral bloodvessels are often diseased in brain syphilis, and the change best known is that described by Moxon, Wilkes, Heubner and others, as syphilitic endarteritis. Briefly, this consists in a gummatous inflammation of the inner coat and muscularis of the arteries, resulting in the formation of tumor-like masses, or encircling rings of diseased tissue, or obliteration of the lumen of the artery for the distance of one or many millimetres. Besides, through simple reduction in the calibre of vessels or through interference with osmosis through their walls a slight but constantly increasing local anæmia of the nervous tissues supplied by the affected artery is kept up. Again, a thrombus may form at any moment where the vessel's channel is narrower and roughened by disease, leading to ischæmia and softening of part of the brain.

The nervous elements proper in syphilitic insanity suffer only in a secondary way; and are in the same condition as after common chronic mania, dementia, and general paralysis.

Very rarely are small gummata developed in the connective tissue of the brain, independently of its membranes.

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## A CLINICAL LECTURE.

Delivered at the Pennsylvania Hospital, Philadelphia.

BY

RICHARD J. LEVIS, M.D.

[REPORTED FOR THE HOSPITAL GAZETTE.]

### PROTRUSION OF THE EYE-BALL—EXOPHTHALMOS.

The patient, a colored woman, has come here complaining of great pain in her left eye-ball, which is, as you see, enormously protruded and very much inflamed. The pain runs up into her forehead and round her head. This pain is almost unbearable at times. She has entirely lost the sight of her left eye.

It has been very hard for us to discover the cause of the exophthalmos in this case. We shall, I think, be obliged to keep the wo-



man in the wards some weeks longer and simply await developments, endeavoring, in the meanwhile, to allay the excruciating pain.

As a general thing exophthalmos is caused by something which presses the eye forward, or by an abnormal relaxation of the muscles of the eye, particularly of the recti muscles. For even if the oblique muscles are unimpaired, the recti being weak, the eye-ball will still protrude, for part of the function of the oblique muscles is to push the eye forward. Exophthalmos is generally due to some structural, or organic cause.

This case seems almost like one of enlargement of the eye, but an ophthalmoscopic examination shows that the eye is entirely normal. As the trouble, therefore, is not intra-ocular it must be post-ocular. This exceeding redness of the whole orbital region is nothing but congestion of the mucous membrane of the lids, which are strangulated by the contractions of the orbicularis muscle.

Among the most common causes of exophthalmos are abscess in the deep tissues behind the orbit, or pus in the connective tissues. Sometimes it is due to fibroid growths, or malignant disease, such as cancer or osseoid sarcoma. Aneurism of the vessels of the orbit is a frequent cause.

It is a very curious fact that a large amount of exophthalmos is compatible with good vision and there is a very good reason for this. The optic nerve is drawn in the books as pursuing a straight course from the optic commissure to its distribution in the retina. This is not by any means the actual fact, the truth being that the optic nerve pursues a curved path and will so stand a good deal of stretching before its functions are interfered with.

The progress of the protrusion in this case has been very slow, too slow entirely for an encephaloid; indeed, almost too slow for a chronic abscess. An abscess too would cause inflammation of which there is none present here. I have listened most carefully over the eye and have not yet been able to distinguish any aneurismal thrill. This case is certainly very obscure. I think that it is very probable that the root of the trouble here is some fibroid growth. At any rate I think we shall have to let the patient stay in the hospital for a week or so, while we await new developments.

#### STRICTURE OF THE RECTUM.

This disease is a narrowing of the rectum from some structural, or organic cause. Like all the mucous canals of the body and particularly like all of its mucous outlets, the rectum is exceedingly liable to the occurrence of stricture.

To discuss more minutely the causes of stricture. They may be said to be any condition which produces a plastic deposition in the tissues, and so interferes with the elasticity of a part. Stricture may also be produced by ulceration. In women a common cause of stricture of the rectum is a difficult labor in which the head has pressed for a long time against the promontory of the sacrum, and in which a good deal of sloughing of the parts has followed. Syphilis is a very common cause of stricture, for syphilis, as is well known, tends very greatly to the deposit of plastic matters all over the body. I think I



may with safety say that the majority of cases of stricture in men present a well-defined history of syphilis. In some cases which have come within my observation, I have found spots of syphilitic infection in the rectum itself, true chancres of the rectum produced by contact of a diseased penis with the parts—a beastly habit, which I am glad to say is as rare as it is revolting. Some cases of stricture of the rectum are produced by inflammation which may go on to ulceration.

In most instances of stricture of the rectum, the stricture is within some two or three inches of the margin of the anus, and can be distinctly and satisfactorily diagnosed by means of the finger well oiled and inserted into the rectum.

This man has evidently already been operated upon for fistula in ano. I introduce my finger to its full extent into the rectum, and still cannot reach the constriction. It must be unusually high up. The man, I find, has already succeeded several times in passing a bulbous rubber bougie some eight inches into the gut. As Dr. John B. Roberts, of this city, in a series of investigations, has found that the average length of the rectum is between eight and nine inches, this stricture must be almost at the confines of the colon.

The assistant tells me that the man's fæces are about the size of his thumb. The first symptom of stricture is generally a more or less obstinate constipation with contortion of the fæces. Here, strange to say, there was at first a troublesome diarrhoea. In some cases of stricture the fæces will have a flattened, tape-like, appearance.

When a stricture is low down, the best instrument for making dilatation is the finger, beginning with the little finger and inserting a larger one each day. Here, where the band is so high up, the treatment will have to be by a graduated series of rectal bougies. In introducing the bougie be sure to give the end of it a slight curve. Make it a rule never to introduce a straight probe of any kind.

Stricture of the rectum is, I am sorry to say, a condition which it seems well-nigh impossible to cure permanently. Bougies may be employed conscientiously for a long time, and all unpleasant symptoms may pass away entirely for the time being, and in rare cases for a long period of years, but the patient is, as an almost universal rule, sure to come back to you after a longer or shorter period of time with the same old trouble.

#### GUN-SHOT WOUND OF THE GROIN.

This man was brought into the hospital some days ago, with a severe gun-shot wound, which had penetrated the groin midway between the symphysis pubis and the anterior superior spine of the ileum, exactly over the line of the anterior femoral artery. The hemorrhage at the time was tremendous and obstinate. We had to try all sorts of remedies before the bleeding could be stopped. The man was very much weakened by the excessive loss of blood.

I bring the patient before you to-day because a very serious doubt has arisen in the minds of the hospital staff as to whether or not there has been a development of a traumatic aneurism since the accident.

The hemorrhage at the time was so profuse that there was no question at all in our minds, but that the anterior femoral artery had been severely wounded.

Placing the hand over the site of the wound, a very full pulse in the artery can be easily distinguished, but none of us have been able to determine thus far as to whether this is an aneurismal impulse, or simply the usual pulse communicated through the dense tissues, and exaggerated in the process of communication. I think that the impulse may be nothing but a sort of concussion through these tissues.

I place the man on his belly, and with a finger on each of the popliteal pulses, I endeavor to note any difference in their fullness, or strength, but none can be noted. There does not seem either to be any difference in the heat of the two feet and legs.

In such a case as this, even if the fact of an aneurism were proven, and Dr. J. B. Roberts says to-day that he hears a very decided aneurismal bruit with his stethoscope placed over the cicatrix of the wound, it would be very difficult to make up our minds whether it is a distinctly localized aneurism of the anterior femoral or a diffused aneurism in the dense tissues of the part. Such diffused aneurisms are quite common in certain portions of the body such as the above. All that we can do at present is to put the man to bed, keep him quiet and wait for more decided developments. If it is really an aneurism, the characteristic symptoms will not be slow in showing themselves.

#### DESCRIPTION OF THE FRACTURE OF THE RADIUS.

This woman has just been brought in with a very decided fracture of the lower end of her right radius.

The displacement in this fracture is backwards and inwards. Almost invariably the line of the fracture is transverse. Most of the fractures of the radius take place at its lower end. This fracture is caused by a violent fall on the palm of the hand in which the hand is strongly stretched and unduly extended.

The first thing that I do in treating this case is to place my knee inside of the woman's elbow so that I may have some brace from which to make traction. If traction fails in any case the only thing to do is to try forced flexion.

The form of splint which is always used in this fracture, or which, at least, ought always to be used, is not a straight splint, but one so made as to take the exact curve of the radius. If I were to put on a straight splint it would be impossible to bring the lower fragment down into its proper position. The object of a splint should always be to fit the natural curvature of the part.

The frequent bad results of the treatment of this fracture are all due to the fact that the splint employed has not been of the proper shape and that treatment with a straight splint, or in fact, with any other splint but one constructed like this one, has resulted in permanent deformity of the lower arm and consequently in numerous suits for malpractice.

#### NECROSIS OF THE OS CALCI.

The limb is nearly up, but before closing I must fix this little

fellow's foot for him. One operation for necrosis of the os calcis has already been performed and a good part of the bone removed; not enough, apparently to stop the morbid process. While the boy is being put under the influence of ether my assistants apply Esmarch's bandage. Never perform any operation on the lower leg without this bandage. It prevents loss of blood and shows you what you are about. Now that the leg is thoroughly blanched I open the old cicatrix and with my fingers and this scraper remove all the pieces of dead bone. After cleaning out the cavity I fill up the hole with a piece of carbolized lint which will act at once as a disinfectant and stimulant to the exposed surfaces.

## HOSPITAL RECORDS.

### HOSPITAL OF THE UNIVERSITY OF PENNSYLVANIA,

(Report prepared for THE HOSPITAL GAZETTE.)

#### PELVIC CELLULITIS.

If the attack cannot be aborted by a full hypodermic dose of morphia and twenty grains of quinia by the mouth administered immediately after the appearance of the first symptoms, the abdomen is painted with iodine and a poultice is applied. In most cases the quinia is made a routine treatment, some thirty grains being given in the course of each day. Large doses of morphia are also continued. Where the case is one of marked plethora, neutral mixture and some preparation of ipecac are combined with the morphia. Occasionally tonics are administered. If the local tenderness still persists at the end of a week's time, a blister is applied over the tender spot. In the later stages of the disease the following prescription is used with marked advantage, viz:

R	Mist. glycyrrhizæ comp.	̄vj.
	Ammoniaë muriatis,	̄ii.
	Hydrarg. chloridi corrosivi,	gr. i.
M.	Tinct. aconiti radicis,	gtt. xxiv.

S. A tablespoonful in water, every six hours.

In making use of a poultice, if covered with oiled silk, or greased brown paper, one is found to remain soft for twenty-four hours.

#### AMENORRHEEA.

In amenorrhœa from anemia and chlorosis, the following prescription embodies the hospital practice:

R	Pulv. ferri sulphat.,	
	Potassii carb. pure,	aa. ʒ ij
	Mucil. tragacanthi,	q. s

M. Et div. in pil. No. 48.

S. To be given daily in doses gradually increasing until three pills are taken after each meal.

This gives the large quantity of twenty-two and a half grains of the dried sulphate of iron per diem.



To counteract the possible costive effect of the sulphate of iron this aperient mixture is given:

R.

Pulv. glycyrrhizæ rad.	
Pulv. sennæ,	aa $\frac{3}{4}$ ss
Sulphuris sublim.	
Pulv. fœniculi,	aa 3 ij
Sacchar. purif.,	$\frac{3}{4}$ jss

S. One teaspoonful in half a cupful of water at bed-time.

Where the disease is due to torpidity of the ovaries this prescription is used.

R.

Ex. aloës,	3 j
Ferri sulphat. ex. sic.,	3 ij
Assafœtidæ,	3 iv

Signe. One pill after each meal. This number to be gradually increased to two and then to three pills after each meal. If the bowels are at any time over-affected, return to the initial dose of one pill after each meal.

#### HABITUAL CONSTIPATION IN THE FEMALE.

At night the patient is given ten grains of blue mass, and this is followed by two tablespoonfuls of castor-oil early the next morning. If this does not remove all the hardened fœces, a "gravity injection" is administered filling up the entire lower bowel.

As regards after treatment, the woman is taught to go to stool regularly every day, and to eat certain kinds of food only. If medicine be required the following prescription is ordered:

R.

Ext. colocynth. comp.,	gr. xii
Pulv. rhei,	gr. vj
Ext. belladonna,	gr. jss
Ext. hyoscyami,	gr. iiij

M.

Et in pil. No VI divide.

S. a pill at bedtime.

In some cases  $\frac{1}{20}$  of a grain of strychnia is added to each pill with benefit. Iron is eschewed entirely by reason of its very constipating effect. For local treatment the woman's groins and abdomen are daily rubbed several times with a flesh brush, or rough bag of camel's hair.

#### PERIMETRITIS.

The first thing done is to put the woman in bed and keep her quiet. Flying blisters are then applied locally over the abdomen. Cantharides and collodion are painted first on a spot about the size of a silver dollar right over the womb. As soon as the blister begins to draw, a mush poultice is applied. The loose skin over the blister is cut open, and if the skin comes away cotton is put over the raw surface. After three days another blister is put on, this time over the left side of the abdomen; then another on the right side; then a beginning is made again with a blister over the womb.

As regards internal remedies, one-twenty-fourth of a grain of the bichloride of mercury, with ten grains of the muriate of ammonia, are given three times each day in the mist. glycerrh. comp. A pessary of cotton is constructed which can be so adjusted as to hold the womb up. This cotton is dipped in a solution containing three-quarters of a grain of morphia to the drachm of glycerine. The morphia allays the pain and reduces the inflammation, and the glycerine usually sets up a copious watery discharge from the vagina. Iron is not employed until late in the progress of the disease.

After the inflammation is subdued the patient is put upon the following mixture:

R.  
 Hydrarg. chloridi corros., gr. j  
 Liq. chloridi arsenitis, f 3 ss  
 Mist. ferri chloridi.  
 Acid. muriat. dil., aa f 3 ij  
 Syrupi, f 3 ii j  
 Aquæ, q. s. ad f 3 v j  
 M.  
 S. One tablespoonful after each meal.

#### SCIATICA.

Where there is distinct local inflammation, large doses of iodide of potassium and minute doses of the bichloride of mercury are administered. To cause absorption of inflammatory matters inside the sheath, severe blistering, or the actual cautery is employed. The actual cautery has great absorbent action and powerfully relieves over-sensibility of the nerves. Another treatment often employed is by hypodermic injections of morphia and atropia into the adjacent muscular structures. For this purpose at this hospital from one-sixth to one-fourth of a grain of morphia, and from one-ninetieth to one-sixtieth of a grain of atropia are used. In some cases the most excellent results have been derived from the hypodermic injection of from eight to twelve minims of chloroform. In injecting this drug great care is had to keep the needle out of the way of the arteries.

Galvanism relieves pain very quickly in some instances. The mode of application is with the positive pole to the seat of the pain and with the negative pole along the nerve trunk. Where the muscles are wasted the Faradic current is the best.

#### TEMPORARILY IRREDUCIBLE HERNIAE.

If the irreducibility is due to the distention of the sac by air, or fæces, the endeavor is made to dislodge the sac's contents at once. The patient is placed on his back, his shoulders elevated, thighs flexed on the abdomen, and gentle compression instituted over the region of the tumor. This compression is made with great care and very gradually. If, at the end of fifteen minutes, a little yielding is felt and a slight gurgling sound heard, the prognosis is good.

If this gentle compression is not followed by good results it is stopped and something else tried. In the case of an inguinal hernia some leeches are placed over the course of the spermatic cord ; if femoral,

they are put above the saphenous opening, and a cold water dressing applied.

If the case is still obstinate, the patient is kept quiet on his back, and the following prescription given.

R	Pulv. opii	gr. j.
	Ext. belladonnæ	gr. ss.
	Ext. aloes.	
	Pulv. rhei,	aa. gr. ij.
M.	Et in pil. No. IV divide.	

S. One pill every hour.

The cold water dressings are kept over the part. In the course of eight hours an injection is given. In cases where the stomach will retain anything, castor oil is given in doses of two teaspoonfuls, every two or three hours as a carthartic.

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## PERISCOPE.

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### TRANSACTIONS OF THE SEVENTH CONGRESS OF GERMAN SURGEONS.

Translated and Abstracted

BY

C. SCHOENEMANN, M.D. OF NEW YORK.

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#### DR. TRENDLENBURG OF ROSTOCK ON FRACTURES.

Dr. Trendelenburg introduced a carpenter 17 years old, who by a fall from a ladder (Christmas 77) fractured the patella obliquely. No union took place, the use of the foot had not been restored. On Feb. 9th '78 he had operated by making a semicircular incision above the patella, so as to gain a wound as much subcutaneous as possible, reflected the skin downwards, refreshed the two fragments of the patella and united them by 3 wire and one catgut sutures through both the bone and the periosteum. He had great difficulty in uniting the fragments although Maignan's clamp was applied for 8 days previous.

The operation has been performed antiseptically, although without spray, which Trendelenburg never uses when operating. The patient, who could not use his leg at all, can now walk very well. The opening of the joint was perfectly harmless in this case.

Trendelenburg mentioned Langenbeck's old idea, of uniting the fragments in fractures of the neck of a bone by drilling holes through them and inserting ivory screws. And Von Langenbeck then described the operation, which he had performed about 25 years ago on an old lady where he had diagnosed an ununited extracapsular fracture of the neck of the femur. He laid the trochanter open and brought the fragments together by screws. The joint became swollen and gangrenous and the patient died. At the autopsy it was found that the fracture had been partly an intra-capsular one and that the screws had entered the cavity of the joint.

As we now understand that to open joints is entirely harmless, Von



Langenbeck thinks this method of uniting fragments of bones deserves to be tried again. He also recommends silver plated ivory screws.

Koenig at one time united the fragments with a common gimlet, which he allowed to remain in place until union had taken place.

#### OGSTON'S NEW OPERATION.

This operation, Riedinger demonstrated with drawings of a case which he operated on for genu valgum. In two operations he had followed the directions of Ogston as strictly as possible. In one case, where he had applied artificial anæmia the operation was followed by greater hæmorrhage than in the second case where he did not make use of anæmia. In the latter he applied, immediately after the operation, an iron splint, in the former he used first a plaster of Paris dressing (which he had previously disinfected) and an iron splint after the plaster had become saturated.

After both operations he had a considerable rigidity and an enormous swelling of the joints. Both disappeared and Riedinger's very much satisfied with the functional result. Passive motions ought to be made as early as possible, to prevent ankylosis. Undoubtedly there are certain dangers after this operation but not more than after any other, for instance osteotomy. Nussbaum had performed Ogston's operation fourteen times, Thiersch six times. In one of Thiersch's cases the patient died six weeks after the operation, of acute uræmia in consequence of atrophied kidneys.

Between the internal condyle, which was pushed upwards about one centimetre and the external condyle he found a fissure about 0.5 centimetre broad and filled with coagulated—so called organized—blood.

The cartilaginous line of the epiphysis, remarkably diffused on account of the rachitic condition of the patient, appeared displaced corresponding to the operation. Thiersch fears that this interference with the epiphysal cartilage by Ogston's operation might be followed by a disturbance of growth of the bone.

Thiersch exhibited a number of fragments of bone, which he removed from a patient, who had already recovered from a comminuted fracture of the lower extremity. When operating he felt a sudden snap at the place of fracture, which became swollen and bent. His diagnosis, doubting between an osteosarcoma or a pseudarthrosis, proved to be the latter after an exploratory incision.

He had to remove numerous sequestra.

Kolaczek, of Breslau, introduced a young baker 17 years of age, on whom he had performed Ogston's operation for genu valgum of both knees, at the same time.

The deformity commenced eight years ago and became so marked, that finally the right leg formed an obtuse angle of about  $150^\circ$ , the left one of about  $160^\circ$ .

The result of the operation was formally, a perfectly good one, functionally, limited in the right knee, which could be flexed only to a right angle. The operation had been performed ten weeks previously without using the spray, allowing the air to enter the joint. Later on Lister's dressing was applied in its minutest details and the patient

did so well, that after 12 days the dressing was removed and simple woolen bandages applied.

Four weeks after the operation the first passive and active motions were commenced, and to-day the patient can walk a good distance without support.

Thiersch remarks that he would never operate without spray, the risk being too great.

von Langenbeck remarks, that when he cut across the ligamentum externum in his operations of genu valgum 25 years ago, air always entered the joint, but never caused any trouble.

Prof. Uhde demonstrated by the assistance of photographs one of his operations after Ogston.

He cautions against too early an attempt to walk; a disadvantage, which Ogston himself lays stress upon later on.

Bardeleben did not fracture the internal condyle of the femur, he sawed totally through. He agrees with Thiersch, not to operate without spray.

Koenig, by experimenting on the cadaver, found that the joint is broader and opens wide in the middle. He thinks in consequence of such energetic measures in the knee joint, arthritis deformans can result very easily. He further says, that an opinion concerning the result of this operation should not be given until a number of years have elapsed. He thought it was of more importance to know how the patient walked a number of years after the operation, rather than a short time after.

Kocher, in his operations of genu valgum, instead of following Ogston's method, made a wedge-shaped incision and always had a good result.

SCHNEIDER, OF KÖNIGSBERG.—RESECTION OF RIBS AND CLAVICULA.

On Oct. 10, '77, O. H., clerk, 21 years old, made an attempt to commit suicide by firing a terzerol with two big buck shot.

He made a penetrating wound two centimetres in diameter on the left side of the sternum above the third rib with an extensive laceration of the lungs. Disinfection being neglected, the patient had to suffer from hæmato-pyo-pneumothorax and gangrene of the lung, commencing on the fourth day after the injury and accompanied by chills and high temperature.

On Oct. 20, Schneider first performed thoracentesis for evacuating the ichorous and foul contents of the pleural cavity, by making an incision 5 centimetres in length between the 7th and 8th ribs. He then extracted the fragments of the crushed 3d rib and washed the cavum pleuræ thoroughly with a 2½% solution of carbolic acid.

Through the wound, which had been considerably enlarged by the operation, he could see the upper part of the heart, the pericardium the contraction of auricles and the pulsation of the great vessels arising from the heart.

As far as the lung could be seen it was gangrenous, and the greater part of its superior lobe was wanting.

The after treatment consisted in a frequent and careful washing



out of the thoracic cavity with an antiseptic solution ; a silver cancula covered with antiseptic bandages being left in the lower opening. The patient had chills for the following days—no appetite, the gangrene of the lung extending, made the posterior wall of the thorax visible and the balls could be detected. While touching one of them with a sound it fell down in the thoracic cavity upon the diaphragm. During the following night the other ball fell down also. The patient was put under the influence of chloroform, and having been placed on the side, both balls were extracted with the index finger, bent hook-like.

In the first week of November the necrosis of the lung terminated favorably and the patient had no fever thereafter. The lung shrivelled together more and more at the hilus became hard to the touch and covered with firm cicatricial connective tissue.

By cicatricial retraction the original shot-wound was now eight centimtores long and four broad. There being no trace of retraction of the left pleural cavity and as the patient was sinking more every day. Schneider thought a resection of different ribs for reducing the thoracic cavity was indicated. Following Simon's approved idea, to reduce old empyæmic cavities with fistula by reaction, Schneider operated on Dec. 6, '77 eight weeks after the injury, resecting from the second rib four centimetres from the 4th,  $9\frac{1}{2}$  centimetres from the 5th  $9\frac{1}{2}$  centimetres and from the 6th 11 centimetres all from their junction with the costal cartilage. The success of this extensive resection appeared soon. After one week the lower thoracic cavity commenced to diminish in size, pushing the heart slowly to the left. The upper thoracic cavity above the 3rd rib, where no trace of lung existed, remained unchanged. Therefore on the 15th, of January, Schneider made a subperiosteal resection of the clavicle, removing a piece 6 centimetres long in order to draw the left shoulder nearer to the sternum and the soft parts of the super and infraclavicular region, in the thoracic cavity. The attempt proved successful. The soft parts became drawn into the cavity, the upper part of the pericardium and the great vessels moved also more and more to the left and the upper part of the left pleural cavity where before the resections of the clavicle three fingers could easily be introduced, first week of March, admitted only a middle sized bougie. Since the end of March the left pleural cavity has become wholly filled, closed and at the place of the original shot-wound exists a funnel shaped scar and a small superficial wound. The opening from thoracentesis is healed a long time. The resection wounds of ribs and clavicle healed by first intention.

The left arm has free motion in every direction and its function comparing it with the right arm is confined very little. The left clavicle is not more depressed than the right. The left scapula is somewhat lower than its fellow, and not the slightest symptom of scoliosis exists.



## NEWS ITEMS AND NOTES.

**New Explosive.**—A new explosive agent has just been discovered by Professor Emerson Reynolds in the laboratory of Trinity College, Dublin. It is a mixture of 75 per cent. of chlorate of potassium with 25 per cent. of a body called sulphurea. It is a white powder, and can be ignited at a rather lower temperature than ordinary gunpowder, while the effects it produces are even more remarkable.—*Scientific American*.

**Post Partum Neuralgia.**—Mrs. S., a few hours after the termination of a natural labor, was seized with a severe pain in the right calf, which was said at the time to be hard and knotty. Next morning, the pain had almost entirely disappeared, and the calf was quite soft. The pain recurred for four or five days at nearly the same hour of the evening, but with gradually decreasing severity, always disappearing the next morning, and it finally left her altogether. She had a similar pain in the same locality, but less severe, occasionally during the pregnancy, and also during a former pregnancy, and for three days after the birth of the child. The pain, which was undoubtedly neuralgic, was probably due to the shock of delivery; but the point of interest in the case is, that it always occurred in the same locality, never reaching any other part of the limb, and never affecting the left leg.—*John Cass, M.D., Cantab. London. British Med. Jour.*

**Double Uterus and Vagina.**—Pregnancy in Both Divisions of the Uterus.—N. Sotschawa records the following case in the *Moskovskaja Med. Gazeta*, No. 25 1878. A woman aged 25, married five years, had had one abortion and one child at full term. When seen by the author, she was three months pregnant, and had hæmorrhage and pain. The first examination detected an enlarged uterus inclined to the left, and an abortion in progress; to the right and behind lay a swelling as large as an orange, which was at first supposed to be an exudation. It was afterwards found that the vagina was divided by a septum beginning about four-tenths of an inch above the orifice; the right vagina was narrow; the right uterus was larger than the left. From the left uterus an embryo of one month was removed; and, three days later, one of three months from right uterus. The patient did well.—*British Med. Jour.*

**Successful Treatment of Strychnia Poisoning by the Hypodermic Injection of Apomorphia.**—In the April number of the *America Journal of Medical Sciences*, Dr. R. Glisan of Portland, Oregon, reports a case of strychnia poisoning, treated by apomorphia given hypodermically. The symptoms were well marked and severe. It was impossible to give an emetic or use the stomach pump, on account of the trismus. A third of a grain of muriate of apomorphia was injected, and vomiting commenced five minutes afterwards. After the vomiting, there was no recurrence of the general tetanic spasm, but an occasional contraction of a few muscles, when the patient was touched, moved or disturbed. Dr. Glisan dislikes the use of apomorphia in narcotic

poisoning generally, and in ordinary forms of disease requiring an emetic, because of the occasionally dangerous results where vomiting is not produced; but he believes it pre-eminently adapted to poisoning by strychnia, on account of the twofold action of antagonizing the rigidity of the muscular system, and of promptly relieving the stomach of the unabsorbed portion of the poison. He estimated that the patient took six grains of strychnia. Half an hour elapsed before he arrived. From his experience of strychnia poisoning, he is firmly convinced that death was chiefly prevented by the prompt action of the muriate of apomorphia.—*British Med. Jour.*

**Contagious Pneumonia.**—Dr. A. Kühn has observed on several occasions the endemic occurrence of an asthenic form of pneumonia; it once occurred during over-crowding of the prison at Moringen, in Hanover, and also after residence in new and damp apartments. As all the other conditions of the prisoners—soil, drainage, ventilation, drinking-water, clothing, and food—were favorable, the outbreak of the pneumonia could only be ascribed to deterioration of the air in the rooms. The malady was characterized by marked symptoms of infective disease, with much loss of strength, great enlargement of the spleen, albuminuria, and diarrhoea in two-thirds of the cases. The disease did not set in, like genuine croupous pneumonia, suddenly and with a single rigor; it was ushered in by premonitory symptoms lasting from four to eight days, generally without previous rigor, was attended with fever, and ran a very severe course. The engorgement of the lung was usually observed, for the first time, on the third or fourth day of the fever; it was often situated in the upper lobes, and showed much disposition to change its position. There was also very often inflammation of the serous membranes; in one-fourth of all the cases, pericarditis was present; severe pleuritis was constantly met with; and in five cases out of forty-five there was well marked meningitis. The disease was also frequently accompanied from the first by angina and stomatitis, often going on to sloughing. The temperature rose to 107 deg. Fahr., and usually first showed distinct remissions from the fifth to the seventh day. On *post mortem* examination, the muscular tissue of the heart was found either of a dark brown-red color and fragile, or in a state of fatty degeneration; the spleen was enlarged even to three times its normal size; and the albuminuria arose from parenchymatous nephritis. Not unfrequently, also, there was swelling of the intestinal follicles. The disease was communicable. The attendants were infected, and the disease was indirectly communicated through intermediate person to others who did not come into contact with the institution. Dr. Kühn observed in one epidemic seventy cases, and in another eighty-three. Abortive forms were met with—*Deutsches Archiv für Klin. Medicin*, Band xxi.

**Hydropathy in Scotland.**—Last week, there was laid, at Peebles, the foundation stone of what will be the seventeenth hydropathic establishment in Scotland.

**Advantage of Legal Control over Prostitution.**—The classical work of Parent Duchatelet, on prostitution in Paris, contains this passage:

"If legislation cannot render men virtuous ; if it cannot correct the judgment and repress the impetuosity of passions which appeal to their senses too loudly to leave them the consciousness of duty ; at least, it may meet the danger to which the imprudent expose themselves, and, for the sake of these men's wives and children, look after the health of the guilty in order to preserve the innocent. I will go further, for I maintain that it ought to do so, and that those who have neglected this important duty have been unfaithful to their trust, and can only be excused by their ignorance of the benefits of the sanitary surveillance of prostitution."

**The Ministering Angels.**—The *Memphis Avalanche*, describing the scenes of misery and trial in that city, says : "Parents have deserted children, and children parents, husbands their wives, *but not one wife a husband.*"

**Curious Charge Against a Doctor.**—It is reported in the papers that at the Glasgow Small Debt Court, James Patrick and his father sued Dr. Herbert, house surgeon, Royal Infirmary, and Mrs. Lynch, one of the nurses, for £12, as damages sustained by James Patrick, by their having, without the authority of his father, cut from his right arm a piece of healthy flesh for the purpose of grafting it upon the body of another patient. Mrs. Lynch admitted that she had taken a piece of flesh from the boy's arm for the purpose of grafting it on the bad arm of another patient. The practice was quite common, and she did it on the authority of Dr. Herbert. Dr. Herbert denied that he had given Mrs. Lynch any such instructions. The sheriff found the nurse liable in £5 damages and costs. The case against Dr. Herbert was found, "Not Proven."

**A City of Health.**—The village of Kollmar, near Gluckstadt, in Holstein, which is situated in a district reputed for its healthiness, has just witnessed the diamond wedding, or the 75th marriage anniversary of two of its 1,400 parishioners. Two more diamond weddings are impending, and the last fourteen years have seen ten such celebrations there.



# THE HOSPITAL GAZETTE

AND

## ARCHIVES OF CLINICAL SURGERY.

A WEEKLY JOURNAL OF MEDICINE, SURGERY AND THE COLLATERAL SCIENCES.

EDITED BY

EDWARD J. BERMINGHAM, M.D., and FREDERICK A. LYONS, M.D.

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### ANNUAL ADDRESS DELIVERED BEFORE THE AMERICAN ACADEMY OF MEDICINE.

AT

Easton, Pa., Sept. 17, 1878.

BY

FRANK H. HAMILTON, A.M., M.D., LL.D., President of the Academy.

Surgeon to Bellevue Hospital, New York.

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GENTLEMEN—FELLOWS OF THE ACADEMY:—It was not my privilege to have been one of the founders of this society, but I was honored with membership at so early a period of its existence, as to have participated somewhat in the deliberations which were to control its permanent organization, and shape its future policy. I may be permitted, therefore, to speak on this occasion—our annual meeting—of what I consider to be its purposes, functions and destiny.

The purposes or objects of this association, are thus broadly stated in the second article of our constitution :

*“First.*—To bring those who are alumni of classical, scientific and medical schools into closer relations with each other.

*“Second.*—To encourage young men to pursue regular courses of study in classical or scientific institutions, before entering upon the study of medicine.

*“Third.*—To extend the bounds of medical science, to elevate the profession, to relieve human suffering and to prevent disease.”

The founders of this society sought, especially, by its organization to aid others who are engaged in similar efforts in this country, but who are working by other means, to remedy a great and universally admitted evil—namely, imperfect preparation for the study of medi-

cine, and its almost inevitable sequence, imperfect qualification on the part of those who are admitted to practice.

#### NATURE AND EXTENT OF THE EVIL.

It is pertinent to enquire into the exact nature and extent of this evil, its causes and consequences; and also to consider whether our organization is likely to aid those who, in common with ourselves, are searching for a remedy.

For many of the facts which I shall present, I am indebted to the statistical labors of Dr. Pepper, of Philadelphia (1), and to the similar labors of Dr. Green, my distinguished predecessor (2). Both of whom have occupied themselves in a careful study and record of the construction of medical colleges, of the character of licensing boards, the rules governing matriculation, the periods of study, and the qualifications of graduation, both at home and abroad.

Additional information upon the subject of medical education, in this country especially, may be obtained from the reports of the commissioners of education at Washington, and from the address of Dr. Sibbet, the originator and founder of this association (1).

#### REQUIREMENTS OF FOREIGN SCHOOLS.

From these reliable sources of information, and from others which have been consulted, I may state that a thorough preliminary education, generally equal or superior to the acquirements demanded for the degree of A.B. in the colleges of arts and sciences in this country, is the absolute condition for matriculation as a student of medicine, in Germany, Austria, Russia, Sweden, Norway, Denmark, France, Holland, Belgium, Italy, Portugal, Chili, Venezuela and Spain.

In all the countries named, also, the curriculum of study is carefully graded, the advance from one grade to another being only after a thorough examination; and the shortest time of pupilage is four years, nine months of each year being given to college and hospital instruction. In some of the States named, the term of study is extended to seven years. All of the professors, so far as I have learned, are salaried, and in no manner dependant upon the students for their pay. The final examinations for licenses to practice are made by independent boards.

Great Britain, with its colonial dependencies, Canada and Australia, has always been less exacting. The preliminary requirements for matriculation are lower. The courses of study in the colleges and hos-

(1) Address before the Medical Department of the University of Pa., by Wm. Pepper, A.M., M.D., Prof. Clinical Med., Oct. 1, 1877.

(2) Address before American Acad. of Med., at its 1st annual meeting in New York, Sept. 11, 1877, by the President, Prof. Traill Green, A.M., M.D., L.L.D.

(1) Address read at the first meeting of the American Academy of Medicine, by the Secretary, L. Lowry Sibbet, A.B., M.D., of Carlisle, in Philadelphia, Sept. 6, 1876, on the necessity of an organization which shall encourage a higher standard of qualifications in the medical profession of the United States. Published in the Transactions of the Society for 1877.

pitals are shorter; they are not so systematically graded; fewer examinations for promotion are required, and the professors depend upon the students for their compensation. Government determines the number and location of the colleges, but provides no salaries for the teachers.

Within the last year or two, the English system has undergone some improvement, but the statements above made apply to its present condition.

#### REQUIREMENTS OF THIS COUNTRY.

The laws regulating medical education in this country, and the practice of medical colleges and of other authorized licensing boards, has been of late years so much discussed in our medical societies and journals, that the subject must be painfully familiar to you all.

With 4 or 5 exceptions, licensing boards in this country, including the medical colleges, demand no certificate of preliminary education, nor do they demand any preliminary examination. The courses of instruction are not graded: There are no examinations in course for promotion. The term of study required never exceeds 3 years—the actual time of attendance upon college instruction required never exceeds 10 months for the whole period of 3 years, and generally not more than 8 months, and in some cases still less. The examinations for license and for the degree of M. D., are made by the professors themselves, or by the professors, aided by a board appointed by themselves, and who seldom or never take any active part in the examinations. The professors receive no salaries, but are dependent wholly upon the size of their classes for their remuneration.

In the four or five exceptional cases, there has been within a few years an attempt made to improve the plan of instruction by demanding in some cases, certain preliminary qualifications, by grading the studies, and in one case by rendering the professors wholly independent of the pupils, by fixed salaries from permanent or transient endowments: but in neither of these cases have the reforms been such, either in character or degree as to bring the standard of education to a point anywhere near that of foreign schools.

#### PROPORTION OF PHYSICIANS TO THE POPULATION ABROAD AND AT HOME.

The German empire has a population of 41,060,695, with 13,686 physicians. Germany has therefore about 1 physician to every 3000 of its population. About 550 are licensed annually, of whom probably 100 emigrate to other countries, leaving about 450, perhaps not more than 400, as the actual annual supply. Yet it has never been intimated that Germany suffers for want of physicians.

The population of the United States is 44,874,814., with 62,383 physicians, according to the census of 1870. Dr. Pepper estimates that there were in 1877 at least 60,000; but Dr. Sibbet raises the estimate to 80,000. We have therefore it is safe to say 1 physician to



every 600 of the population. The colleges license about 3000 annually. According to the report of the Commissioner of Education above referred to, there were 3177 degrees conferred in course during the preceding year; this enumeration including colleges of Dentistry and Pharmacy.

Lest it might be supposed that this large proportion of physicians to the population was rendered necessary by the sparseness of the population in certain portions of the United States, we will state that New York State has 6810 physicians, or 1 to every 642 of the people; and the District of Columbia, our seat of government, has 1 physician to every 404 of the population.

I have compared our condition with that of Germany, only because the population of the two countries is so nearly the same, that the difference can be easily carried in the mind. The contrast between our supply of doctors, and the supply existing in some other civilized countries, is much greater than in the case of the comparison I have just instituted. For example, Sweden has but one physician to every 7000 of the population; Venezuela and Chili have 1 to 9000, and Brazil has 1 to 10,000.

Here then is a department of industry in which we have led the world, namely, in the manufacture of doctors. It is a somewhat remarkable fact, however, that notwithstanding the enormous, and what might seem excessive production, and which is increasing at the rate of about 3000 a year, there does not appear to have been created any foreign demand for the article. On the contrary, by most governments its introduction and use is forbidden, on the ground that our certificates as to the quality of the fabric are not reliable. Some specimens are admitted to be good, but others with the same endorsements, are known to be very bad; and foreign governments choose to reject the whole, rather than to subject each to a special examination. (1)

It will perhaps interest those young men who are pursuing the study of letters in this college; and who contemplate entering upon the study and practice of medicine, to know that it has been lately estimated that nearly one half the population in this country receive their medical services gratuitously; so that the proportion of physicians to the paying population is about 1 to every 300. In this sense at least, ours is a "liberal" profession. The most so of all other professions or callings.

#### SOURCES OF THE EVIL.

In searching for the sources of the great evil of which we complain, I think we must go a long way back. Our present system of medical education is an inheritance from Great Britain. Our medical colleges were founded, and organized upon the model of the British Schools, which probably, was not the best system at the time of its adoption by us, and certainly is not now.

(1) The Commissioner of Education states that from 90 Medical Colleges, including Pharmacists and Dentists and the irregular colleges, there were for the year 1874, 9,095 students reported, and that of these, only 733 are shown to have received a degree in Letters or in Science.

This system, the distinctive features of which I shall presently describe, has caused in Great Britain a depreciation in the standard of medical education; or to say the least, it has prevented the advance of medical education in an equal proportion to the advance of medical science, and has allowed her schools to fall in the rear of other European Schools.

The medical men and the statesmen of Great Britain clearly understand and publicly declare, that many of their licentiates have very imperfect qualifications. It is with them a constant subject of complaint and deprecation, and has led to much discussion and many suggestions as to the proper remedy. Great improvements have lately been made, but it does not appear to me that they have yet discovered or reached the main source of the difficulty; and I confidently predict that the increased rigor recently observed in the preliminary and final examinations, will prove to be temporary, and that all the numerous licensing bodies of Great Britain—including even the Archbishop of Canterbury himself, who is by ancient right authorized to grant licenses to practice medicine—will soon relax into their former inefficiency.

Dr. Apjohn, speaking to the General Medical Council of Great Britain, said recently, "Some years ago the practise of conferring full medical degrees upon students who had no education in arts was exceedingly prevalent. It was a scandalous practise."—*Dr. Green's Address. (From Med. Times and Gazette, 1877.)*

Dr. Farr said, "It has become a matter of public concern that it is difficult to supply the vacancies in the army medical staff with competent practitioners."—*Ibid, 1877.*

Sir Wm. Gull, addressing the same body, said, I believe that up to the present time the preliminary examinations have been conducted, very generally, by the Medical Faculty, and that is what we want to get rid of. We want to establish that preliminary examinations should be conducted by persons whose minds are directed purely to education, apart from what is technical."—*Ibid.*

\* \* \* "Up to this time, I may say, that the preliminary education examination has been good for nothing as a means of selecting men for entering the profession."—*Ibid.*

#### THE FUNDAMENTAL DEFECT OF THE ENGLISH AND AMERICAN SYSTEM.

Let me now explain what seems to be the fundamental and fatal defect in the English and American system, and that which is the direct and inevitable source of all the other defects.

In all the European countries, and, so far as I can learn, in all civilized countries, except in Great Britain with its dependencies and the United States—that is to say, in all except the English speaking nations—the professorships are endowed; thus rendering the pay of the professors or teachers independent of the fees received from the medical students.

The plan or system of support, or of dependence upon the tuition fees alone for the support of the professors—and which necessarily demands that the conditions of admission and of licensing shall rest

mainly, if not exclusively with the professors—has worked badly in Great Britain, and in all her colonies, including the United States; but it has worked worse in this country since we became independent of Great Britain. While we remained a colony, so early as the year 1765, the medical department of the University of Pa., was organized at Philadelphia without endowment; but at first no student was admitted to matriculation without a thorough preliminary education. Only one other medical college, the medical department of King's Col. N. Y., was established in this country until after the Declaration of Independence; and from that time all the medical colleges, except the University of Pa., omitted to recognize the importance of preliminary education; and in 1811 this condition was formally abolished at the University of Pa. Several new medical colleges had been established, not one of which demanded preliminary education; and the competition had become so sharp, that an abatement of the requirements for admission had to be made, or the college at Philadelphia would have lost its position as the leading school.

In Great Britain the number of colleges was, and still continues to be, limited by the general government; and so, also, in the English colonies; but when these colonies became independent, each state claimed the right to do its own teaching, and most of the states were not slow to exercise their right. The trade was free; and so the new industry sprang up, and has attained its present vast proportions. We had in 1876, 78 medical colleges empowered to grant licenses to practice medicine and surgery, namely, 63 Regular, 11 Homœopathic and 4 Eclectic. This does not include colleges of Pharmacy and of Dentistry, although it is well understood that both Pharmacists and Dentists more or less encroach upon the practice of both medicine and surgery in this country. Nor is any account made of other licensing boards in no way connected with the colleges, which exist in some of the states.

If you attach any value to the opinions of the world upon our system of medical education, you will listen to what was said in the *Gazette Hebdomadaire* for Jan. 12, 1877, quoted by Dr. Green in his annual address, "The number of quacks in England is considerable, but it is much greater in the United States. Medical education in the United States is more than defective—it is bad."

#### REMEDY.

To those born and educated abroad, and who have no acquaintance with the machinery of our government, and with the character of our people, the problem before us, no doubt, may appear to be of easy solution. It is only to copy their example. There are many medical men, also, born and educated in this country, but who have had no practical experience in the business of teaching and of licensing, who believe the remedy could be easily found. They have from time to time suggested various and dissimilar remedies, some of which they have been permitted to see tried; but notwithstanding all their efforts they are compelled to make the humiliating admission that the reforms have not come.



*The Federal Government.*

The general policy of our government is opposed to centralization; and the powers of Congress have been limited to those matters in which a central control was deemed more essential or absolutely necessary. In matters of education, through the Bureau of Education, it exercises a surveillance. It collects, arranges and distributes statistical information; but it seldom ventures even to recommend, much less does it attempt, or has it authority to control—education.

The Federal Government has, therefore, never attempted to regulate medical education in this country, nor is it probable that it will ever do so. To those who will take the trouble to read the discussions both in and out of Congress, pending the establishment of the Bureau of Education at Washington, only six years ago, the evidence will be conclusive, that the Federal Government will not be permitted at present, and perhaps at no time in the future, to assume the management and control of education. The states claim this as among their many reserved rights, and they are not likely soon to relinquish it.

We have also a Bureau of Agriculture; but like the Bureau of Education its functions are merely to collect and diffuse information.

*The State Governments.*

Our Union consists at present of 38 States and 10 Territories, including the District of Columbia. Thirteen of these States are as old as the foundation of the government. The remainder have been added from time to time; and certain territorial districts are now waiting for admission. The process of our construction is, therefore, still incomplete. All of our Territory is not yet formed into States, for the reason that, excepting the District of Columbia, these Territories have not yet the required population to entitle them to a State organization. As Territories they are under the exclusive control of the general government, but as soon as they attain the rank and title of States, they become in a great measure independent of the general government.

Each one of these States has, we repeat, full control of its own educational interests; and they have seldom failed to exercise their authority in one way or another, but scarcely any two in precisely the same way. Some have recognized the right of all those who choose to practise medicine, and to collect their fees as for any other labor or service; other States have limited the right to practise to certain conditions, more or less severe.

As to the value of all that has hitherto been done by State legislation, a correct opinion may be formed by referring to the facts already given. State legislators have seldom sufficient knowledge of, or interest in the subject, to establish and maintain a proper system of medical education. But it is only due to our legislators to say, that in most, if not all cases, the system actually established, is all, or nearly all, that the profession and the colleges have asked for. I have never heard of an instance in which the State has been asked, formally, to establish a grade of medical qualification equal to, or in any

measure approaching that adopted in most other countries. It is not improbable that in some instances it would have been done, if the request had been made seriously. The reason why it has not been demanded by colleges and the profession is, I presume, that if such a system were adopted, unless the colleges were fully endowed at the same time, the schools would be deserted; inasmuch as students could get their licenses to practise much sooner and with much less cost in other States. A license to practise in one State is not necessarily a license to practise in another, but owing to the close proximity and free intercourse between the States, it has never been found possible to prevent wholly the licentiates of one State from practising in another.

Occasionally the state has appropriated small sums of money to medical colleges; and in one instance the state appropriations, aided by the use of government lands and funds<sup>(1)</sup>, proved sufficient to endow partially the college and its professorships; and then arose a new subject of difficulty. The state claimed the right to establish professorships in all the various forms of medical dogmas, and this right it has exercised to the great mortification of the original medical faculty, and to the great detriment of the college.

The experience of this college—the medical department of the University of Michigan—stands now as a grave warning to other medical colleges; and most of them would to-day hesitate to put themselves under the power of the state. Preferring to lose the endowment, rather than to submit to the humiliation and disgrace of being associated with empirics in the education of medical students.

So far as dependence upon the state legislatures is concerned, then, we may conclude, they will do nothing for us in the future that they have not done in the past. They are not likely to endow our colleges, and if they do they will pretty certainly accomplish their ruin, in at least so far as sound and useful teaching is concerned.

For us, the union of medicine and state is quite as much to be dreaded, as the union of church and state. We believe it would retard rather than advance, the true interests of either. We speak for ourselves in this matter, and not for other governments. Our knowledge of our own peculiar institutions, our experience as to their workings, and especially the late experience of the college at Ann Arbor, convinces us that we are right in this matter, and that nothing is to be expected from state endowments, and very little from any state legislation.

### *The Medical Colleges.*

So far as my experience and knowledge extends, the professors, and all employed as teachers in our medical colleges I have no knowledge of the irregular medical colleges, and do not, therefore, allude to

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(1) The lands granted and patented to 14 states, before the adoption of the Federal Constitution, from the date of the first grant to June 30, 1876, amount to 47,802,271.16 acres. In the year 1830 alone the sum of \$28,161,044.91, arising from surplus revenue, was divided (subject to call by the general government) among 20 states, several of which have devoted a part, or the whole, of the income from this fund to public education. *Report of the Com. of Education for 1876*, (From the "Sanitarian," for Sept. 1878.)



them,) are, with few exceptions, men of intelligence, of large practical experience; and if they are not all profound scholars, they are seldom wholly unqualified in the departments which they attempt to teach. We have in our country, scattered here and there, a great many thorough scholars; and medical colleges in most cases choose these men for their vacant professorships. It is generally for their own interest to do so; and such being the fact, they are certainly, as a rule, very likely to select the best men.

It is not intended to say that all of our best men have found places in the colleges. The colleges are not yet sufficiently numerous for that. There are, no doubt, as many good men outside of the colleges as there are in; and it does not always happen that the best men are chosen, but it must be admitted by any one familiar with the names of the gentlemen to-day connected with our medical colleges, that, in the main, the selection has been judicious.

Moreover, these men, holding the positions of professors in our medical colleges, are in general as sincerely desirous to raise the standard of medical education as are the members of the profession at large. I think I may say that they are more so. Each of these professors, in consequence of his own superior attainments in his special department, necessarily desires a higher standard of attainment in his pupils, and feels a greater mortification at their failure.

Nevertheless the fact remains, and is notorious, that these colleges graduate and license to practice, a great number of men who are totally unqualified; and you may find some difficulty in understanding how this fact can be made consistent with the reputation for honesty, intelligence and sagacity which I have accorded to a majority of the gentlemen who control these institutions. The arguments will naturally assume the character of an apology, or justification, and may be stated briefly as follows:

1. The present system of education in this country is, as I have shown, hereditary; having been imposed upon us while we were still in a colonial state. It is a sort of King's evil, therefore, for which we were not originally responsible. There are many features of American institutions, society and customs for which our venerated mother is alone or mainly responsible. Of most of these we are justly proud; but there are some things inherited from the same source which were of doubtful advantage to us. Such as the system of medical education, the system of slavery and the habit of boasting. In reference to either of these matters it does not become the people of Great Britain to lift the head and point the finger at us (1).

2. We have not only inherited an imperfect system of medical education, but the nature of our political institutions is such that the system has proved to be more especially unsuited to our wants, than it is to the wants of Great Britain. The federal or general government of these States refuses to assume the charge of education, and for rea-

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(1) Dr. Malpother, Prof. of Physiology in the Royal Col. of Surgeons, while paying our physicians and surgeons many flattering compliments, speaks of the "prevalence of quackery and the generally low state of the profession" among us. —*Med. Gazette* (New York), Nov. 26, 1870.



sons which lie at the foundation of our political system. This is not, and need not be, the fact in Great Britain, or under any other system of government known to us.

3. The States, as has already been said, have almost uniformly neglected to endow medical colleges, or to establish a proper standard for medical education. And it is questionable whether, in the light of our late experience, either the colleges or the profession at large would accept endowments upon such conditions as the States are almost certain to impose; namely, the supervision and control of all matters pertaining to the kind and character of the instruction to be given.

4. The result is, and must continue to be, that the management of medical education, is left entirely to the people, or perhaps I might say, to the profession. It is the same in the departments of Law and Divinity in this country. Each department being the author and administrator of its own system of education, and of licensing. (1)

Consequently, also, all the medical colleges, or almost all, are private corporations, or, to use an expressive Americanism, they are private "enterprises." A term which implies a "venture." And if it were not for this element of venture and enterprise in our profession, we would be without medical colleges altogether.

Let us consider the nature of these private enterprises—the claims which the public has upon them and their ability to meet and satisfy these claims.

Almost every medical college in this country has been planned, organized, equipped and carried on by ambitious and aspiring medical men; and there is not perhaps one, however it may have originated, which could have been sustained without their special efforts, money and personal sacrifice. From their often scanty means they have purchased grounds, erected or rented suitable buildings, and supplied them with the apparatus for teaching. And much of this property is now heavily encumbered with debts for which the faculties are responsible. They have established Hospitals and Dispensaries, performing their services in these, in all cases, without compensation, in order to secure clinical instruction for their pupils—they have labored for their students in season and out of season with an assiduity and devotion, which in almost any other calling would have commanded a large pecuniary return, and which we do not think has been surpassed, if indeed it has been equalled by the professors and teachers of medicine of the old world.

They have done all this, and much more in many cases, as a private venture, in a field left unoccupied by the state and general government with no hope or expectation of pay, beyond a slight pecuniary consideration, wholly unequal to the time and talent and money invested

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(1) We have often heard it intimated by gentlemen of the Legal Profession and by gentlemen of the Profession of Divinity, that the condition of things is not much better with them than with us. They lament the decay of culture and courtesy in their ranks; but we must leave them to deal with their own problems in their own way. For the present we have enough to do to solve our own

and the increase of their reputation as experts in the departments they attempt to teach.

As we have before stated, a few of the medical colleges have attempted a forward movement : but their slow and unequal steps show conclusively, that while the head and heart are willing, and are urging them in the right direction, the feet are dragging heavy fetters. Not one of them has ventured a step beyond what was deemed safe in a pecuniary point of view. Nor will they ! Harvard, connected with the oldest University in the United States, and situated in the midst of the most wealthy and most highly educated people of our country, has, after much hesitation, and in the face of considerable opposition from its own faculty, adopted some of the needed reforms. But it will be remembered that Harvard Medical College has always had a larger proportion of Batchellors of Arts among its matriculants than any other American school, except perhaps the University of Virginia. The proportion being probably 30 or 35 per cent ; and the faculty, therefore, incurred very little risk of diminishing the number of their pupils, by demanding either the degree of Batchellor of Arts, or a not very exacting preliminary examination, conducted wholly by themselves. These gentlemen, who rank among our most distinguished medical men, will not pretend to say that in this, and the few other excellent reforms they have made, they have done all they would be glad to do, nor all that was needed.

In according to the University of Pa., also, praise for its recent action, we must not imagine that she has been actuated by a higher sense of duty, or a better code of morals, than has hitherto actuated her own board, or than continues to control the conduct of her sister colleges. This college actually fell back from her original standard ; a thing which, so far as I know, no other has done ; and this retrograde movement she has made twice. First in 1811, when she abolished her preliminary requirements, and second in 1852, when she "sorrowfully abandoned," after "six years of steadily diminishing classes," her slightly lengthened course of studies. (1)

Within the last year, having received a permanent endowment for one of her professorships, and a temporary guarantee for the remainder, she has ventured once more upon important reforms ; but, not to speak of other omissions, she has omitted what we regard as most important, namely, preliminary qualifications. In this respect Harvard, and two or three other colleges have done better than the University of Pa., if a preliminary examination by its own faculty has any value. "It was not thought feasible," says Dr. Pepper, "to insist upon this immediately ; but all are agreed that it must be established as soon as possible."

Why was not this feasible or possible immediately ? Why had not the "fullness of time" come for this as well as for the other reforms adopted ?

The only answer which suggests itself, is, that the permanent endowments are not secured, except in part ; and if there was any sort

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(1) Prof. Pepper's address.



of a gate at the entrance, obstructing the free admission of students, even a turnstile, requiring one to pass at a time, the classes might diminish in size and the income from fees which contribute to support the guarantees, fall off. This would possibly cause the withdrawal of the temporary guarantees, and the upshot would be that the college would have to retrace its steps once more. The Faculty has done wisely, no doubt, to accept a free interpretation of the words of Epictetus, "and above all things, the door is open."

That for which my venerable and much respected Alma Mater deserves commendation is, the successful effort to endow even partly her professorships, and to secure a temporary guarantee of the remainder; but with these excellent buoys at her waist, she has no reason to take special credit to herself, because she ventures into a little deeper water than others have dared to, who have nothing but their own muscle to keep themselves afloat. (1)

No, Gentlemen, there is no very great difference in matters of duty or of conscience among medical men at home or abroad—in office or out of office—in professorships or out of professorships. They are all about equally desirous of improving the standard of medical education, but not many in either rank will hold the standard very high, or very long without something in their stomachs. A standard bearer must have something substantial inside his belt. (2)

(1) The first full permanent endowment of a professorship in this country was made by the widow of the late distinguished surgeon, Dr. J. Rhea Barton, of Philadelphia.

By a letter just received from Prof. Cabell, of the University of Va., I learn that the Medical Department of the University is mainly supported by an annual state appropriation of \$30,000; but that quite recently Mr. Corcoran, of Washington, has fully endowed one professorship, and has partially endowed two others.

The Commissioner of Education in his annual report for 1874, after enumerating the donations to educational institutions for the past year, says:—

"While the total benefactions to education in this country for the past year were, so far as ascertained, \$6,053,304, these several schools ("the medical—including all classes, also pharmacists and dentists") which so directly affect human life, have received for the year, only \$308,466, and a total income of \$24,000 from permanent funds, they being almost entirely dependent upon their tuition fees, which amount to \$520,593."

The commissioner further remarks:—"Considering how closely these schools affect the life of every individual in this country, many of the details reported will excite surprise."

In the report for 1876, the total amount of benefactions for educational purposes for the preceding year, so far as ascertained, was \$4,601,845, of which only \$36,750 had been made to the 102 colleges (including Irregulars, Colleges of Pharmacy and Dentistry). The value of the grounds, buildings, and apparatus belonging to the institutions is reported as \$3,489,800.

(2) That the medical men at large do not feel a deeper interest in this matter than do the professors in the medical colleges, and that they cannot be more safely entrusted with our educational interests than the colleges, unless other coincident changes are adopted, is sufficiently shown by the signal failure of county and state censors to do their duty when empowered to examine candidates and grant licenses. In this state they have never demanded a higher grade of qualifications than the colleges; and the writer has seen more than one case in which a candidate, rejected by the colleges, has been forthwith admitted by the



Now and then, in the course of my life, I have seen men who honestly thought they would revolutionize and reform this whole matter, at all hazards, if only they had the opportunity; but who having been made professors and given the opportunity, have done no more than those who preceded them. They were sincere in their convictions as to what ought to be and might be done; but after more or less prolonged and ineffectual struggles to extricate medical education from its toils, their limbs have gradually become relaxed, as if from sheer exhaustion, and they are to-day as quiet as the dead. "Let not him that girdeth on his harness boast himself as he that putteth off." For myself, I am obliged to say, that I have not always entertained or expressed the opinions I now hold upon this subject; but that a later and more careful study of the whole matter has forced the conviction that in endowments alone can be found a remedy equal to the emergency: And these endowments must be unconditional—carrying no such restraints as are almost certain to accompany State benefactions.

Whenever there shall be one or more medical colleges thoroughly endowed, situated in cities of sufficient population to ensure an abundance of clinical and dissection material, a reform will follow as complete as the most zealous student and lover of medicine could desire. The Faculties of our colleges will be occupied then solely in teaching, and they will readily accept of those two most important reforms—the complete separation of the business of teaching from the business of matriculation and of licensing to practice. Neither of which reforms, you may be quite sure, will be made while the professors are dependent upon the students for their fees. (1)

It is not certain but that for a few years the numbers would be small, but in an endowed school, this fact would not effect its permanency; and if it happened that for a time most medical students would seek a shorter, and easier, and cheaper road through those colleges whose curriculum was less severe, it would not be long before the public even, would understand the difference between the qualifications implied by the respective diplomas. As between those colleges which have already adopted partial reforms and those which have not, the difference is too little to ensure the attention and respect of the people; but when the difference is made as wide as it ought to be, it will be promptly recognized and appreciated.

Admitting then that we cannot look for help in this matter to either the Federal or State Governments; and that the medical colleges cannot or will not—for the facts remain the same, whatever the motives may be—admitting, I say that the colleges cannot or will not furnish us with better doctors without guarantees of better pay; admitting that these guarantees or endowments have not yet been

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licensing boards. Neither county nor state censors are, in a majority of cases, chosen on account of any special qualifications which they are supposed to possess as examiners, and it cannot be thought strange, therefore, that they should license incompetent men. A stream cannot rise above its source.

(1) The same view of this matter was taken by Dr. Baldwin, in his address as President of the American Medical Association, only that he thought the Federal Government should undertake the endowment of the professorships, a thing which we consider impracticable, or rather impossible.

made, and are not likely to be made very soon; what then remains to be done? are we to fold our hands and let things take their own course whatever way they may drift? I think not.

*Public Sentiment.*

There are many things which we can do more or less effectively. We can labor to create a sound public sentiment, which shall in some measure influence medical colleges and medical men, but more especially to create a sound sentiment among the young men who are contemplating the study and practice of medicine. They must be persuaded that it is unbecoming for them to enter upon the study of a learned profession without suitable classical and scientific knowledge and without mental discipline; that it is impossible for them without this knowledge and discipline, to make any respectable attainments in the science of medicine—and that it is shameful for them to enter upon the practice of medicine, and attempt to minister to the physical sufferings of their fellow beings, without a competent knowledge of their science.

We are not the first to have discovered and to have employed this mode of meeting the difficulty. Almost the entire medical profession in this country, including, even most of that very large proportion who have not had the advantages of a thorough preliminary training, are urging its utility or necessity; the medical associations have, in all parts of the United States, again and again declared its importance, and especially is this true of the American Medical Association. The American medical journals have unanimously insisted upon radical changes in this respect; the professors and the alumni of medical colleges at their annual commencements, and in their social gatherings, have reiterated the same sentiment; but, as we have seen, the work of reform in this direction is not yet accomplished. They need further help, and we have put our hands together to help them.

Our association is not intended as a substitute for any other association of medical men; but we propose to supplement their labors. We fully believe that we can be useful in some small degree, and we shall not cease our efforts or disband our organization, until the **needed reforms are accomplished.**

In conclusion, gentlemen, as an encouragement in our efforts by example, by diffusion of information, by argument, by persuasion, and by incentives to accomplish ends for which there are at present no other means provided, we are permitted to say, that the picture which we have presented to you of the condition of medical education in this country has a reverse, which has not been shown to you. While it is true that the legal or accepted standard is very low, so that multitudes are admitted to practise without proper qualifications, there are a great many notable exceptions. Many young men, educated in our colleges and hospitals, enter the practice of medicine with as much theoretical and practical knowledge of their profession as is demanded in the best schools of Europe; and most of these young men continue to labor in their studies and in original research, faithfully and successfully. The world, while looking with a certain degree of surprise upon our system of education, has not been per-



mitted to look upon our medical men, and our progress in original research and discovery with contempt. It is compelled to accept of the paradox, that in spite of our imperfect system of education, a large number have thoroughly mastered our science. The world acknowledges our discoveries, accepts our improvements and reads our books.

I offer these facts as an encouragement for us to proceed in our humble efforts to create a proper public sentiment, because these are the only means which can be at present employed; and especially because the pressure of public sentiment has been the sole means hitherto employed, and, as we have seen, it has not been without its fruits.

We have many ripe scholars and skillful physicians, who were educated at home, because:—Although preliminary education may not be demanded of the matriculants, it is often possessed by them:—Their education having been acquired either in established and accredited colleges, after a thorough and complete course of study, or under private instructors, and by their own unaided efforts. Our best students while actually employed in the study of medicine, work very hard; and the harder, perhaps, because of the brevity of the periods of instruction. Many of our graduates, also, do not enter upon the regular practise of their profession, until they have devoted several additional years to study and to hospital practise, under experienced teachers and practitioners.

I have examined young men for licenses to practise, and have been brought into contact with gentlemen of my own profession, educated abroad and at home, enough, to convince me that we have as thorough scholars and as able practitioners, of our own production, as can be found anywhere: and perhaps as many in proportion to the population as elsewhere, and all that are actually required for the wants of the people. But there is not one of these men, be they few or many, who have attained the knowledge of medicine or of surgery which they possess, without study. Genius and good common sense are valuable attributes, and contribute greatly to success in any sphere of life; but in medicine they can never take the place of solid scientific acquirements. They will not supply a knowledge of anatomy, physiology, chemistry, pathology, or of any one of the many branches of medical science; and without a knowledge of these subjects genius cannot guide the knife, or administer safely the medicine. If we have skillful surgeons and physicians they were made such by long and diligent study; and of the studies necessary for the acquisition of medical knowledge the preliminary academic and collegiate are of first importance.

Let me not be misunderstood. There is not one of those men known to you or to me, who have acquired undoubted skill, and a deserved reputation, except by long and diligent study. For it to be otherwise would be as impossible as to calculate eclipses without the previous study of the science of astronomy. There may be men who have acquired an extended reputation, and a remunerative practice, and who have never been students: but these men have not the skill they are supposed to possess, nor a deserved reputation, and they are



only the more dangerous because they have a reputation. Genius and worldly wisdom are terms whose ample significance covers often such qualities as audacity, mendacity, cunning and legerdemain, or successful imposture.

I am honoured by the splendid scholarship and well earned success of a large number of young men whose diplomas and licenses to practice I have signed. I am proud of the world-wide and merited reputation of many of my professional brethren, but it cannot be denied, that in the enormous excess which the figures have placed before us—an excess far beyond the wants of the people—there are to be found many thousands who have never been subjected to the proper tests of their ability, and from which sources the ranks of empiricism are mainly supplied; who are totally unqualified, and who ought not, in mercy to the people, and in justice to those who honestly earned their diplomas, ever to have received a license to practice.

It is too late to remedy this now. Nothing but a deluge would exterminate them; but we may at least hope to limit their propagation, by a more careful sifting of the seeds in future, and by intelligent culture of the growing plants.

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## HOSPITAL RECORDS.

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### MEMORIAL HOSPITAL DISPENSARY ORANGE NEW JERSEY.

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Reported by THOS. W. HARVEY, M.D., HOUSE SURGEON.

FRACATURE OF THE NECK OF THE SCAPULA.

J. L.—U. S.—Act. 26,—Male—One week ago he fell while running, falling with his arm extended horizontally so that he struck the ground with his left shoulder and upper part of the thorax. Doctor Thompson saw him shortly after and found the parts very much swollen and the head of the humerus dislocated and just beneath the coracoid process. The doctor reduced the dislocation with his heel in the axilla. He then noticed that he got crepitus on moving the limb, but the swelling was too great to locate the fracture.

He ordered a sling and evaporating lotions—Present condition: seen by Drs. Purson, Chandler and Rüttner. The arm, shoulder and left chest are very much ecchymosed, the left shoulder is depressed, the acromial end of the clavicle prominent, but the general shape of the shoulder is perfect. The head of the humerus can be easily marked out, it is in position and presents no deformity, and no pain or crepitus on pressure or movement. The coracoid process is lower on the left than on the right side, being separated from the clavicle about one inch and a half. Distinct crepitus is obtained by pressing on the coracoid process, counter-pressure being made on the spine of scapula. When the arm is extended, pressure deep in the axilla with the scapula held firmly, counter-pressure being also made on the coracoid process also produces crepitus. The patient is able to bring his left hand

within three inches of the tip of the right shoulder and has considerable use of the arm within certain limits, cannot extend the arm beyond a right angle from the body, and cannot circumduct it. Pressure on the coracoid process and deep in the axilla causes pain. These are the only tender points.

The patient was ordered to keep the arm in a sling, with the shoulder steadied with adhesive plaster, the arm bound to the side and the usual axillary pad, in fact it was treated as a fractured clavicle.

The case is interesting an account of the rarity of fractures of the neck of the scapula, and because the diagnosis was particularly clear and certain.

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## NEWS ITEMS AND NOTES.

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**The Accoucheur of the Future.**—The habit of mothers in regard to their obstetrical attendant is certainly unwise in several respects. It is the exception if the expectant mother selects her intelligent physician in advance, and places her case in his hands in anticipation of the hour of her trial. Indeed, this whole matter is, perhaps, in the majority of instances, left almost absolutely to chance, and when labor is ushered in, if it happens that an intelligent physician is not at hand, the next best, a stranger to the patient, is hurried to the lying-in chamber, or perhaps the whole matter is left in the hands of the nurse, unless some unforeseen accident or difficulty presents, and then the family physician, or the stranger is hastily called in, and expected to grapple successfully with the danger. It is true that very many cases of labor require at the time but very little more attention than the experienced nurse is adequate to give; but the very fact that most women receive but little beyond this extent of attention, with indifference, during the first week—and haste in getting up, doubtless affords the foundation for many of the countless ills and accidents that occupy the attention and skill of the gynecologist of to-day.

A little reflection on the part of mothers-to-be, with some rational explanation of these matters by the family physician, would enable us to enter upon better plans. Prof. T. Gaillard Thomas has very sensibly expressed this idea in his horoscope of the future obstetrical attendant. He says: "The time is not far distant when confinement cases will be treated very differently from what they are at the present day. This is a subject of the utmost importance. There is the most urgent need of a radical change in the practice of the majority of the profession, and the time is ripe for the appearance of a stirring and able paper on "The Proper Management of Natural Labor," which will awaken medical men to a sense of their duty in obstetrical cases. The physician should be expected and required to visit his patient from time to time, all through her pregnancy, in order to see that everything is progressing favorably for a successful delivery, and to remove, if possible, any condition as albuminuria, for instance) which is likely to interfere with this; and I am fully convinced that



it will not be long before the accoucheur who does not pursue this plan will be held culpable. Again, he will be held equally culpable if he discharge his patient at the ninth day, or at the end of a fortnight, without making a physical examination to ascertain that the parts have sustained no injury from the strain and pressure of parturition, and that the process of restoration to the normal condition is going on satisfactorily.—*Obstetric Gazette*.

**The Eradication of Syphilis and Crime.**—Dr. G. F. French, of Portland, read a paper before the late meeting of the Maine Medical Association, in which he advocates a rather summary, but on reflection a rather sensible though not a very feasible, method of eradicating syphilis and crime. He argues that both of these evils are hereditary and that it is possible after the present supply has been exhausted, to secure future immunity by striking at the *fons et origo malis*. He proposes to do this by rendering barren the female by the removal of her ovaries, and by making for males imprisonment for life the punishment for capital offences. He concurs with Prof. Gross in the opinion that syphilis is the prime cause of human deterioration, and advocates with J. Marion Sims that it, like other contagious diseases, should be brought under the jurisdiction of the State Board of Health. "A syphilitic prostitute should be spayed, lest she become, like Margaret in the Jukes, 'the mother of harlots!'" Syphilis, which is already a ground of divorce, ought to be a legal impediment to marriage, and it should be a crime, punishable with mutilation, for any syphilitic to cohabit. And the time will come when it will be considered an outrage on society for any one to marry who has any form of severe transmissible disease."

To the latter prophecy, we say, amen! but fear it will be centuries after Dr. French and the rest of us have gone over to the majority before legislation will take any such shape.—*Obstetric Gazette*.

**Spencer Well's Ovariectomies.**—Dr. Spencer Wells has performed 900 operations for ovariectomy. Of these there have been 676 total recoveries. Dr. Wm. Farr calculated that the expectation of life gained by these operations was in all 19, 691 years.

**Causes of Suicide.**—Of the 5,567 cases of suicide reported in France during 1876, among the causes assigned are drunkenness, 1,443, afflicted with incurable diseases 798, domestic broils, 633, dread of poverty 329, less than one-third of the entire list is charged with drunkenness.

**Consolidation of Medical Colleges.**—At the last meeting of the Ohio State Medical Society a committee was appointed on the "consolidation of medical colleges." The idea was that too many colleges existed in Ohio, and that the profession would be benefited by concentrating the present teaching material into a smaller compass. The committee consists of one member from each of the seven faculties of the seven regular medical colleges of the State. The idea is a capital one if well developed.—*Detroit Lancet*.



**Elastic Adhesive Plaster.**—For some time I have been trying to find an elastic covering that, being attached to the skin, would move to the movements of that membrane and the parts beneath it without causing an unbearable sensation of stiffness or an uncomfortable wrinkling. As there was nothing in our market to suit me I procured some india rubber, and giving it a coat of plaster, such as is recommended in Griffiths's Formulary under the name of Boynton's adhesive plaster lead plaster one pound, rosin six drachms, I found the material I wished. After using it as a simple covering for cases of psoriasis, intertrigo, etc., I extended its use to incised wounds, abscesses, etc., and found it invaluable. Placing one end of a strip of the plaster upon one lip of the wound, and then stretching the rubber and fastening the other end to the opposite lip of the wound I had perfect apposition of the severed parts, the elastic rubber acting continually to draw and keep the parts together. When I have been unable to get the sheets of rubber I have used the broad letter bands (sold by all stationers) by giving them a coat of the plaster. I do not know if this kind of plaster has ever been placed before the profession. If it has I can do no harm in again calling the attention of surgeons to it. If it has not, I feel assured that any one who uses it once will never again be without it, as it is cleanly, certain and satisfactory in its action and fulfills indications that no other plaster does or can. —Dr. Wilbur P. Morgan, in.—*Boston Med. and Surg. Jour.*

**Office Thieves.**—At the Glasgow Assizes, last week, a woman was sentenced to eight years' penal servitude for having stolen a gold watch and chain from a physician, in George street, early in the morning of the 5th, of April last.

**Preliminary Scientific Education.**—An important step has been taken by the managing authorities, of the Johns Hopkins Hospital in Baltimore, with the object of elevating the standard of the scientific education of the medical profession. A course of preliminary education has been established for the special purpose of preparing students for the study of medicine. Before admission to the course, an examination in the subjects of general education will have to be passed; comprising a knowledge of English, elementary mathematics, arithmetic, geometry, and Latin (Cæsar and Virgil). The instruction will extend over three years, as follows—*First year*: French, German, drawing, experimental physics, elementary mechanics, and chemistry; *Second year*: Chemistry, general biology, elementary comparative anatomy, with dissections, elementary physiology and histology with laboratory work, human osteology and the anatomy of the ligaments and joints, and logic; *Third year*: Human anatomy, advanced physiology and histology, and elements of embryology and psychology. This instruction will be both didactic and practical. The plan laid down by the authorities of the Johns Hopkins Hospital and medical college is one which, if well carried out, will be of benefit to the medical profession, and it is to be hoped will be adopted with such modifications as may be necessary) in other medical institutions.

**Treatment of Gonorrheal Epididymitis**—F. J. Bunstead, M.D., *American Practitioner*, March, 1878, recommends that absolute rest in a recumbent position should be enjoined immediately upon the first symptoms of the accession of an epididymitis. In fact, the patient should be undressed and placed in bed. The bowels should be cleared by a cathartic, such as citrate of magnesia. If there is much toxic disturbance, give aconite, support the inflamed testicle, and smear it with:

R	
Ext. belladonnæ,	ʒ ij
Glycerinæ,	ʒ ss
Aquæ,	ʒ j

M. Moisten also a piece of lint with the same, and apply constantly.

When fluid is found in the tunica vaginalis, resort to the multiple punctures recommended by Volpenn. By so doing you will give immediate relief, and arrest the progress of the disease. This treatment, to which may be added sedatives internally in certain cases, and in cases of delayed resolutions careful strapping of the testicle, comprises about all the routine treatment of the author, who is a well-known authority in venereal diseases. The doctor does not indorse as good practice the large incisions through the tunica albuginea and into the substance of the testicle, as practiced by some French and English surgeons.

**The History of Clinical Instruction.**—According to Prof. Leyden, of Berlin, the origin of clinical instruction is to be found in Italy, in the sixteenth century. In 1579, the supreme council of Venice, principally at the instigation of German students, ordered that two teachers of practical medicine should visit the hospital at stated times and there instruct the students at the bedside. This regulation was soon also adopted in Padua. Soon, however, the universities began to raise difficulties, on the ground that the clinical instruction drew away the students from the lectures and disputations and in consequence the Venetian council prohibited the continuance of the clinical teaching. The students protested; and it was determined that the teachers of practical medicine in the universities should alone be authorized to take their students to visit patients, as they might think proper. It seems that the system of introduction to practice, apart from the universities, was rather common. The Emperor Frederick II (1194-1250) ordered that no one should enter on practice until he had practised for a year under the guidance of a physician. The special founder of modern clinical instruction was Franz Deleboe (Sylvius) in 1614-1672. In Berlin, Fritze was clinical professor in 1798; and the examination regulations of that year speaks of clinics at Berlin and Halle. In Königsberg, clinical medicine is mentioned in 1785 and 1790. The first clinics embraced all the departments of medicine; the division into medical, surgical, and obstetric, and polyclinic, was of later growth.—*British Med. Jour.*

# THE HOSPITAL GAZETTE

AND

## ARCHIVES OF CLINICAL SURGERY.

A WEEKLY JOURNAL OF MEDICINE, SURGERY AND THE COLLATERAL SCIENCES.

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WHOLE No. 54.

### LECTURES.

## THE INROTATORS OF THE THIGH, AND THREE CASES OF INJURY TO THE HIP.

A lecture delivered at the Long Island College Hospital, Brooklyn, N. Y.

BY

JARVIS S. WIGHT, M.D.,

Professor of Surgery.

[Reported for THE HOSPITAL GAZETTE.]

GENTLEMEN:—I am sometimes asked what muscles in-rotate the thigh? Let me at once name these muscles:

(1) The gluteus minimus; (2) the gluteus medius; (3) the tensor vaginæ femoris; (4) the vastus externus; (5) the vastus internus; (6) the crureus; (7) the rectus femoris; (8) the gracilis; (9) the semi-membranosus, (10) the semitendinosus; (11) the iliacus; (12) the psoas magnus; (13) the pectineus; (14) the adductors.

That these muscles are in-rotators of the thigh may be shown by the following kinds of evidence, namely:

*I.—Experiments on the living body; II.—Experiments on the dead body; III.—Mechanical considerations.*

*I.—Experiments on the living body.*—When the thigh is completely out-rotated, place the hand on the skin over the gluteus minimus; in-rotate the thigh, and the contraction of the anterior fibres of the gluteus minimus will be felt. In the same manner the contraction of the anterior fibres of the gluteus medius may be felt.

When the thigh is in-rotated by volition, the tensor vaginæ femoris can be felt contracting under the hand, as it rests on the tissues over that muscle.

Out-rotate the thigh completely, and, while the hand is on the tissues over the upper part of the vastus externus, in-rotate the thigh by volition, and the vastus externus will be felt contracting. And when the thigh is by volition moved from out-rotation to in-rotation the vastus internus may generally be felt contracting. The contracting of the crureus is marked by the contracting of the rectus femoris.

When the thigh is by volition moved from out-rotation to in-rotation the fibres of the rectus femoris may generally be felt contracting.



Out-rotate the lower limb completely, and the contraction of the gracilis can be felt during in-rotation of the thigh.

While the lower limb is in-rotating by volition, the fibres of the semimembranosus and the semitendinosus may be felt contracting under the hand.

The fibres of the iliacus, the psoas magnus, and the pectineus cannot be felt contracting during the in-rotations of the thigh, because they are deeply located. But considerations to be brought forward further on will show that these muscles are in-rotators of the thigh.

Out-rotate the thigh completely, and place the hand on the upper part of the adductors, and then in-rotate the thigh completely, when the anterior fibres of the adductors will be felt contracting.

It must be remembered that the muscles during the above experiments must be made to contract by volition.

II. *Experiments on the dead body.*—Select a muscular cadaver, and remove all the peri-muscular and peri-tendinous tissues of the hip, the thigh, and the upper part of the leg, leaving the fascial tendon of the tensor vaginæ femoris, and separating the muscles as completely as possible. It must be remembered that the muscles have now no contractility.

1. In-rotate the thigh, and the anterior fibres of the gluteus minimus and gluteus medius will be relaxed. Out-rotate the thigh, and the anterior fibres of the gluteus minimus and gluteus medius will be made tense.

2. Insert the fingers under the broad, fascial tendon of the tensor vaginæ femoris. In-rotate the lower limb, and this tendon will be felt loose; out-rotate the lower limb, and this tendon will be felt tight.

3. Now put the popliteal space of the limb on a block, so that the leg will flex enough to make the quadriceps extensor gently tense. Then in-rotate the lower limb, and the fibres of the vastus externus, the vastus internus, and the rectus femoris can be seen, and felt to be relaxed. Out-rotate the lower limb, and the fibres of the vastus externus, the vastus internus, and the rectus femoris can be seen and felt to be made tense. In the mean time, by inserting the fingers under the rectus femoris, the crureus may be felt relaxed by in-rotation and tense by out-rotation of the thigh.

4. Insert the fingers under the gracilis. It will be felt relaxing during in-rotation, and tensing during out-rotation of the lower limb.

5. In a similar manner the semimembranosus and the semitendinosus may be shown to relax during in-rotation and to tense during out-rotation of the lower limb.

6. Expose the iliacus, the psoas magnus, and the pectineus muscles, when they will be seen to relax as the thigh in-rotates, and to tense as the thigh out-rotates.

7. In the same manner it may be shown, that the anterior fibres of the adductors will be relaxed, as the thigh of the cadaver is in-rotated.

It may be remarked in this connection, that the action of the in-rotators of the thigh would be changed after fracture of the neck of the femur.

III. *Mechanical Considerations.*—In mechanics, a line may represent the force moving a body. And the force may be so applied as to be resolved into components—each component doing a different work—many muscles in the human body are so disposed, that the contractile force is resolved into components—each component doing a special kind of work. Among these muscles may be noted the in-rotators of the thigh.

1. The anterior fibres of the gluteus minimus and the gluteus medius pull on the trochanter major; the contractile force is resolved into an upward component and a component acting inward and forward. The last component is resolved into an inward component and a forward component. The forward component is employed to in-rotate the thigh.

2. The contractile force of the tensor vaginæ femoris is resolved into an upward component and a component acting inward and forward. The last component is resolved into an inward component and a forward component—which are employed to in-rotate the thigh as well as the leg.

3. The contractile force of the rectus femoris is resolved into an upward component and a forward and inward component. The last component can in-rotate the lower limb.

4. The two vasti and the crureus pull on the shaft of the femur; they are inserted into the tendo patellæ; the general contractile force of these three muscles is resolved into a downward component and a component acting inward and forward; the last component will in-rotate the thigh. Hence the thigh can be in-rotated by the quadriceps extensor.

5. The contractile force of the gracilis, in complete out-rotation, can be resolved into an upward component and an inward component. The inward component will tend to in-rotate the thigh.

6. The contractile force of the semimembranosus and the semiten-dinosus can be resolved into an upward component and a component acting outward and backward. The last component will in-rotate the thigh.

7. The contractile force of the iliacus and the psoas magnus can be resolved into an upward component and a component acting forward and inward. The forward part of the last component will in-rotate the thigh.

8. The contractile force of the pectineus can be resolved into an inward component and a forward component. The forward component will in-rotate the thigh.

9. Finally, the contractile force of the anterior fibres of the adductors of the thigh may be resolved into upward, forward, and inward components. The inward and forward components will so operate as to in-rotate the leg and the thigh.

A general statement may be made in this connection, namely: The contraction of the muscle tends to approximate the points of origin and insertion. These points may be so related that they can move indirectly towards each other. The muscles, above described as in-rotators of the thigh, have their points of origin and insertion so

related, that they can be approximated by the indirect motion of in-rotation of the thigh. Hence these muscles can act as in-rotators of the thigh. A direct consideration of all other motions of the thigh have been excluded, in order to concentrate attention on in-rotation.

In fine, by experiments on the living body and on the dead body, and by mechanical considerations, it must be concluded that the muscles named above are more or less in-rotators of the thigh.

Let me now for a few moments turn your attention from mechanical relations to pathological conditions. And I need not tell you, that the out-rotators of the thigh, both by size and by dynamic relation, act more powerfully than the in-rotators of the thigh, for you are already familiar with the structure and function of these important muscles. Let me however, in this connection, call your attention to the great force that the muscles about the hip can exert in keeping the head of the femur in the socket; to the very strong planes of fascia about the hip, offering much resistance on account of their inextensibility; and to the insignificant part played by the atmospheric pressure in preventing a dislocation of the femur, as this is only fourteen pounds to the square inch;—and this pressure is but an exceedingly small part of a force that is equal to the muscular contraction that can act to prevent a dislocation of the femur.

The significance of the out-rotators of the thigh, when a patient falls on the hip, consists in their force overcoming the force of the in-rotators of the thigh, as a general thing. In which case the lower limb is out-rotated, and the patient falls on the *anterior* and outer side of the trochanter major, as may be usually known from two facts: 1/. The soft parts over the *anterior* and outer side of the trochanter major will usually show the most marked signs of *contusion*; (2). The posterior part of the neck of the femur, *on account of the obliquity of the blow*, will be most impacted and most shortened, when there is an incomplete fracture of the neck of the femur. And when there is a complete fracture of the neck of the femur, some of the inrotators of the thigh will act as outrotators of the shaft of the femur. For a more complete account of the structure and the function of the upper end of the femur, you are referred to the August No. of the ARCHIVES OF CLINICAL SURGERY for the year 1876.

Let me now give you some important points in three cases of injury to the hip that have come under our observation during the present session:

CASE. I. M. Smith, 74 years of age, married, born in Norway, and a shoemaker, was struck by a truck, and knocked down falling on his right side. He complained of pain in right hip and knee: There was contusion on the anterior and outer side of the right hip. On measurement: the leg-bones were found of equal length: the thigh-bones were found of equal length; and the lower limbs also were found of equal length: the two thighs of the patient rotated in a similar manner. The two lower limbs were originally of the same length no doubt: and they were found of the same length after the injury. Hence fracture of the neck of the femur was excluded: The diagnosis was contusion of the right hip and thigh.



CASE, II. B. Ward, 49 years of age, born in Ireland, a house-carpenter, fell on the pavement Sept. 15th, 1876, striking on the right hip, and was admitted to the hospital March 28th, 1878. The patient had always been well to date of injury. He has been unable to walk since that time without crutches. The right lower limb appeared shorter than the left lower limb : both at the foot and the knee.

The patient was five feet and four inches in height. His estimated weight was 135 pounds. The following measurements were made, to wit ; Right Leg,  $14\frac{1}{8}$  inches : Left Leg,  $14\frac{1}{8}$  inches. The difference in favor of the right leg was  $\frac{1}{8}$  of an inch.—Left Thigh,  $18\frac{3}{8}$  inches. Right Thigh  $17\frac{1}{8}$  inches. The difference in favor of the left thigh was  $\frac{1}{8}$  of an inch.

Left Lower Limb,  $32\frac{1}{8}$  inches. Right Lower Limb, 32 inches. The difference in favor of the left lower limb was four-eighths of an inch.

Left femur from the top of the trochanter major,  $15\frac{5}{8}$  inches. Right femur from the top of the trochanter major,  $15\frac{5}{8}$  inches. No difference in the lengths of the femora could be made out : But the right femur was probably shortened about one-fourth of an inch. The difference in the lengths of the thighs appeared on measuring from the base of the inner condyle of the femur to the anterior superior spine of the ilium. The original length of the right thigh was estimated at about  $18\frac{3}{4}$  inches. This would make the probable shortening of the right lower limb about one and one-fourth inches. If this estimate be correct, the right lower limb before the injury was six-eighths of an inch longer than the left lower limb. The apparent shortening of the right lower limb was one-half inch. Add this to the original estimated difference in the lengths of the lower limbs, and it gives the estimated shortening of one and one-fourth inches.

A diagnosis of impacted fracture of the neck of the right femur was made : because the right leg was longer than the left leg, the right thigh was shorter than the left thigh, the right thigh was originally longer than the left thigh and the right lower limb was shorter than the left lower limb ;—also because the right thigh had lost some of its rotation, and could not be abducted as much as the left thigh ; and because the right lower limb was in a state of out-rotation, evidently caused by the contraction of the out-rotators followed by a blow on the anterior and outer side of the trochanter major, driving and fixing the outer end of the neck into the upper end of the femur, where it fortunately remained :—For the doctor who examined the hip at the time of the injury did not use force enough to separate an ordinary impaction, nor did he make a diagnosis, the case being obscured by the great swelling.

Fortunate are those surgeons, who look for every other sign, before looking for bony crepitus, in a case of impacted fracture of the neck of the femur : and more fortunate are their patients ! It is far better to depend on the means of investigation that I have enumerated, and not look for crepitus at all, than it is, by severe manipulation, to break up an impaction, and add greatly to the peril of your patient, and leave him with a very useless limb. Do not break up an impacted fracture of the neck of the femur.

**Case III.** John Ownsworth, 39 years of age, born in Ireland, fell from a ladder, a distance of six feet, on Christmas eve in 1877, striking on his left hip, and could not walk for a few days after the injury. He was admitted to the hospital May 1st, 1878, for examination.

There had been a diagnosis of contusion of the left hip, and no special treatment had been instituted. The following measurements were made, to wit :

Right leg on the inside,  $15\frac{1}{2}$  inches. Left leg on the inside,  $15\frac{1}{2}$  inches. Hence the right and left legs were of the same length.

Right thigh from the anterior superior spine of the ilium to the base of the inner condyle of the femur,  $20\frac{3}{8}$  inches. Left thigh from the anterior superior spine of the ilium to the base of the inner condyle,  $18\frac{1}{2}$  inches. A difference in favor of the right thigh of one and seven-eighths of an inch. The right lower limb measured  $35\frac{7}{8}$  inches, and the left lower limb measured 34 inches—a difference in favor of the right lower limb of one and seven-eighths of an inch. The two femora from the top of the trochanter major to the base of the outer condyle were nearly of the same length ; and the top of the left trochanter major was nearly two inches above the line of Nelaton. There was considerable callus in the region of the trochanter. The rotation of the left lower limb was less than that of the right lower limb. And the rotation of the left thigh was notably less than that of the right thigh. Adduction, abduction, flexion and extension, were all less on the left side than on the right. And the thigh and leg were everted, showing, when the patient fell, that the out-rotators were predominating over the in-rotators—that the blow was received on the anterior and outer side of the trochanter major—the force being applied obliquely backward and inward, that the posterior side of the neck of the femur was more impacted than the anterior side, and that the fragments of bone were consolidated in the position in which the injury left them.

One of two things must have taken place in the last case : (1.) There must have been *interstitial absorption* after the contusion and the concussion ; or, (2.) There must have been an impacted fracture of the neck of the femur and subsequent consolidation. Now, without denying that *interstitial absorption* may take place in some cases of contusion of bone, I must confess, that in this case, such a process is extremely improbable, when all the facts are considered. Hence I must take the view that there was an impacted fracture of the neck of the femur. And there is no doubt more or less absorption of bone after an impaction of this kind, due to the inflammatory softening, and the pressure caused by the contraction of powerful muscles. And it will be observed in these cases that the prominence of the injured hip is “higher up” than the prominence of the un-injured hip, often giving the appearance that the injured hip is more prominent than the other ; the powerful muscles of the hip drawing the lower limb upward.

And it ought not to be forgotten in this connection, that some of the innervators of the thigh are simple outrotators of the shaft of the femur, as the adductors, the pectineus, the iliacus and the psoas

magnus, and that they will aid the out-rotators in twisting the *shaft* of the femur, before the neck of the femur is broken, but especially during impaction and after complete separation in case of fracture.

You will now readily understand why it is necessary to examine an injured hip with the greatest care; you will see the advantage of measuring, in a comparative way, the legs, the thighs, and the lower limbs of the patient; you will see the great harm that may come from attempts to get bony crepitus: for the absence of crepitus will not always demonstrate the absence of fracture, and by getting crepitus you may do your patient mischief that you cannot remedy; and you will comprehend, that a patient having a severe contusion of the hip should not be allowed to get up and go about. And, finally, you will appreciate, to a certain extent, the great difficulties that environ the diagnosis of the injuries of the hip.

### A CLINICAL LECTURE.

Delivered at Jefferson Medical College Hospital.

BY

SAMUEL W. GROSS, M.D.

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(Reported for THE HOSPITAL GAZETTE.)

#### EXTERNAL HEMORRHOID.

This is a trouble for which you will be very frequently consulted. You notice this little tumor on the verge of the anus. It is characteristic in appearance and is the cause of great pain. The man first noticed its presence yesterday afternoon following a passage accompanied by a good deal of straining. The tumor is uncommonly large for a pile. It is of the usual bluish color, and imparts a decided sense of tightness to the touch.

Hæmorrhoidal tumors are of two kinds, external and internal. The internal pile is within the sphincter ani muscle and consists of a knot of hypertrophied arteries and veins. It is commonly soft and spongy in texture. The external hæmorrhoid is of a very different character. It is external to the sphincter ani muscle, but is very often strangulated by the contraction of that muscle. It consists of an extravasation of blood from the hæmorrhoidal vessels, is, in fact, a sort of apoplexy at the verge of the anus.

As regards the treatment of an external hæmorrhoid Erichsen of London, and Bryant, of Guy's Hospital advise its immediate removal with a knife. This is a truly villainous practice and attended with great risk of obstinate hæmorrhage. The American surgeon incises the tumor with a bistoury and presses out its contents i.e., the contained clot of blood. The structure of an external hæmorrhoid consists entirely of this clot of blood. The slight operation relieves the pain and tension at once. As an after treatment the parts should be well bathed with cold water and some medicine given to act on the liver and bowels. [The above remarks were made by Prof. S. D. Gross, who had taken his son's place for a few minutes.—REPORTER.]

#### EPITHELIAL CANCER OF THE UPPER LIP.

This man is a farmer and 55 years of age. He always enjoyed good



health until last April, when following a slight local irritation in shaving, a small wart made its appearance on the outer portion of the upper lip. This wart gradually increased in size. The man consulted a neighboring physician who laid the wart open and cauterized it every day for a month with the result you now see—a roundish lobulated, ulcer giving forth a constant sanious discharge and causing frequent twinges of sharp, lancinating pain. This ulcer extends from within one half inch of the median line of the upper lip across the cheek one and a quarter inches to the left angle of the mouth, and from the border of the mouth to within one eighth of an inch of the left ala of the nose. You notice this little nodule, or tubercle on one side which illustrates in an excellent way the mode of growth of the epithelial cancer, or carcinoma, showing how actively proliferation goes on.

On last Wednesday I operated on an epithelial cancer of the lower lip in a young man only 35 years of age. Cancer is rare at such an early age. It does not usually attack a person under the age of 50.

The treatment in this case will be, of course, the immediate removal of the growth. The man has been put thoroughly under the influence of ether while I have been speaking to you. The disease, in this instance, does not involve the mucous membrane of the mouth or lips. In cutting, I shall go as far as possible from the limits of disease. This will be a very nasty and bloody operation, and I am much afraid that the man will be pretty thoroughly out of the influence of the ether before I get through with the cutting.

I begin by making a rectangular incision down to the bone, cutting well up on the cheek between the cancer and the left ala of the nose, and prolonging the left side of the mouth. Now, that I have cut out all the diseased tissue, I proceed to take up the flesh along the canine fossa of the upper jawbone, and well up towards the orbit so that I may slip my flap forward sufficiently. You will always have to expect great hemorrhage in these operations on the lower parts of the face.

Before bringing the flaps together, my assistants carefully tie all these spurting arteries. The hemorrhage is still considerable, however, for no part of the body is more vascular than the face. By loosening the right side of the upper lip and sliding it well over, you see that I have succeeded admirably in filling up the gap. There may possibly be some slight deformity of the left corner of the mouth, but that will not make much difference, particularly in the case of a man who can let his mustache grow, and cover over the scar. The mouth looks a little drawn up, but nature will bring it back into shape.

#### NÆVUS MATERNA.

You notice this soft, elastic tumor over the upper portion of the left frontal bone. It is as large as an almond and is traversed by veins. When the child cries the tumor grows hard and tense. This is what is vulgarly known as a mother's mark, a *nævus materna*. These tumors are called cavernous *angioma* and consist of dilated veins, or arteries, or both—sometimes the veins predominate, sometimes the arteries. These veins and arteries are, of course, of capillary size.

There are a great many ways of operating in a case like this. In a recent instance I tried to cut away the growth under the skin so as to avoid a bad-looking scar, but I found it of no use. On another occasion I tried cauterization, heating the bulb of the cautery and perforating the tumor in many places, but it did no real good.

The proper way to treat such cases is the one which I shall now adopt. I push two oiled pins right through the base of the growth so that they cross each other at right angles. I then take a sharp knife and cut a groove in the skin between the points of insertion and of exit of the two pins, and then pass a stout ligature round the base of the *nævus* and underneath the pins. I draw this ligature just as tight as I possibly can, so as to completely strangulate the growth. When this is done the vessels of the tumor are obliterated, new matter is thrown out and the tumor itself sloughs off in the course of four or five days, leaving an open, granulating wound, which must be protected by some mild ointment. Before dismissing the case I cut off the ends of the pins so that they will not catch in the clothing. There is no use whatever in temporizing in these cases by the use of the cautery, or by the injection of irritating substances in the body of the tumor.

#### OSSEOID SARCOMA OF THE LEFT CHEEK.

This man is a farmer, 57 years of age. About one year ago he first noticed a small swelling above the canine fossa of the lower jaw bone. This spot gradually became the seat of lancinating pains. Upon questioning the patient I find that one of his brothers died of cancer of the lower lip. In spite of this local disease the man's general health during the past year has been excellent. He sleeps well and has a good appetite.

You see this irregular ovoid swelling, extending from the upper lip almost to the orbit, and from the left ala of the nose all the way to the anterior border of the ramus of the lower jaw. The tumor is densely hard and immovably fixed. The mouth does not seem to be involved. The palatine process of the superior maxillary and the alveolus of the jaw bone are free from disease. There is no implication of the orbit. I do not yet know the condition of the nasal bones. When a tumor begins in, or over the antrum it usually attacks the jaw in all directions. A cancer of the antrum *Hymorium* may arise from the glands of the mucous membrane, or from the periosteum.

The various varieties of tumors occur in the following order, so far as frequency is concerned, viz:—sarcomas, carcinomas, fibromas, cysts, and osseous growths.

This tumor feels exactly like bone, and is perfectly immovable. Upon introducing my finger into the man's mouth I find that there is no extension of the disease into that cavity. I should say that this tumor originated with the soft layer of the periosteum. It may involve the under bone. There is evidently incipient ossification in this case. Wherever there is ossification, or calcification, we call the tumor *osseoid*. The *osseoid sarcoma* is one of the most malignant of all growths.

In my late investigations into the malignant tumors of the long bones I have found that sarcoma is malignant in  $\frac{75}{100}$  of all the cases.

The skin in this case was thickened and disfigured by the application of a "cancer plaster" to the spot by some quack. This of course caused sloughing.

I do not find any lymphatic involvement in this case. Malignant disease may exist to a very late period in its course without lymphatic involvement.

Now that the patient is thoroughly under the anæsthetic I shall begin by making a rectangular flap: the skin of the cheek is not at all involved: carrying my knife up along the edge of the nose to a point about an inch below the inner angle of the left eye and from there well across below the eye towards the ear. I am working my way gradually from the surface towards the antrum. Sarcoma is most common in the young but is met with at all ages.

My first diagnosis of the case was the correct one. It is a case of osseoid sarcoma of the outer layer of the periosteum of the antrum. The bone is nowhere involved. There is some slight deviation of the septum of the nose, but that is without doubt the result of a severe fracture of that organ which the man received some time ago. In some rare instances (I do not think it is the case here, there is an extension of the disease into the bone through the Haversian canals.

I am gradually getting away all the diseased tissue by means of this chisel. The bone is altogether sound as are also the muscles. The alveolar process above the first molar is a little soft, but the softness does not extend to any depth.

As I find some difficulty in stopping the bleeding from some of the smaller arteries, particularly those issuing from the bone I shall have to leave the wound open for a while until the flow can be staunched. I will then bring the flaps together by twisted sutures. From present appearances there will be very good coaptation of the parts.

[*Second day.*—The wounds in both the cases of malignant growth had begun the process of healing by first intention.]

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## HOSPITAL RECORDS.

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### ST. LUKES HOSPITAL, NEW YORK.

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**SIMULTANEOUS LIGATION OF SUBCLAVIAN AND CAROTID ARTERIES OF RIGHT SIDE FOR ANEURISM OF THE FIRST PART OF THE SUBCLAVIAN—RECOVERY.**—SERVICE OF DR. J. L. LITTLE.

A. M., aged 46—Irish—Ship carpenter—Entered hospital March 16, 1877. Had been a heavy drinker. Never had syphilis. In June, '77, while carrying a piece of timber on the right shoulder, he was overcome by the weight and fell to the ground. The next morning noticed a marked change in his voice, which has remained to the present time. He also has suffered from severe neuralgic pains running up the right side to the back of the head and to the ear and down as far as the 7th cervical vertebra, and also to the shoulder. This has continued to the present time. In August last, noticed just above the right side of the sternum a pulsating tumor.



On examination, a pulsating tumor can be felt just above the sterno-clavicular articulation on the right side extending about 1 inch above the sternum and  $1\frac{1}{2}$  inches to the right. Expansive pulsation well marked, but no distinct bruit. Radical pulsation much feebler on the right side. Considerable huskiness. Laryngeal examination reveals paralysis of the right vocal cord, and trachea much tilted to the left side. Diagnosis based upon the following facts:—The situation of the tumor, and the change in voice taking place immediately after the injury and long before the tumor was noticed.

*May 4th, 1877.*—Operation performed. Subclavian exposed and carbolized catgut ligature passed beneath it. Same course followed with the carotid. Subclavian first tied. On tightening the ligature on the carotid the patient seemed to fall into a state of syncope, the face became pale and the pulse feeble and it was about 15 or 20 minutes before he rallied. The wound was thoroughly washed with carbolized water and gauze dressings applied. Patient made a good recovery from the operation. On July 3d he got drunk and was discharged. The tumor seemed to have undergone but little change, and although reduced in size the pulsation was very distinct.

*On July 25,* readmitted. Two days before was seized with paralysis of left side of body and aphasia. Remained in the hospital in this condition until Sept. 10th, during which time his symptoms gradually improved. Speech returned and he regained the use of his leg so as to be able to walk—but more or less rigidity remained about the muscles of his arm. The tumor has perceptibly diminished in size during his stay in the hospital.

Since leaving the hospital the patient has been under the observation of Dr. Little, and at the present time (Oct., '78,) he seems to be in far better condition than he has been since the operation. The tumor has entirely disappeared except under pressure behind the sterno-clavicular articulation, a small pulsating mass can be felt. Rigidity of arm still exists.

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## PERISCOPE.

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### PROCEEDINGS OF THE SEVENTH CONGRESS OF GERMAN SURGEONS.—CONCLUDED.

Translated and Abstracted

BY

C. SCHOENEMANN, M.D. OF NEW YORK.

VON MOSENGEL, ON ASEPTIC DRESSINGS.

The speaker recommends his experience based on the good results after severe injuries and complicated fractures dressings, which are aseptic from the beginning, by mixing the gypsum with carbolated water. These dressings can be kept aseptic by covering the plaster after it has set, with an alcoholic solution of antiseptic materials, which will not affect the gypsum. If he intends to exclude the free access of air, he paints the dressing over with carbolated oil, whereby the pores are closed, or he uses a coat of carbolated wax.

## LÜCKE, DR. STARRHEIM, ON NECROSIS OF MUSCLES.

On Feb. 10, '76, the patient, a student of medicine who had always been in perfect health, went on the ice, slipped and fell, but did not perceive any particular pain; and there was no ecchymosis visible. On the evening of the same day the patient had a severe pain in the centre of the calf with a swollen spot as big as a cherry, also another small swelling further down. The pains became so severe, that subcutaneous and subcutaneous injections of morphia had to be applied, but they gave no relief.

*Feb. 12.*—Leeches put on, also without benefit.

*Feb. 21.*—When Lücke saw the patient the first time, the whole calf appeared swollen, a spot in the upper calf between tibia and fibula was very tender and especially prominent. Percussion revealed that the patient did not suffer from an osteomyelitis of the tibia. The fibula could not be examined on account of the swelling of the soft parts.

Lücke at once made an incision and a piece of waxy degenerated muscle made its appearance, but no pus, although the tibia was denuded of its periosteum. He operated under Lister's method.

On Feb. 23, the dressing was removed and a small purulent plug (which unfortunately has not been examined) was squeezed out. Moderate suppuration totally circumscribed up to Feb. 24.)

*March 3.*—Temp.  $103.4^{\circ}$ . Pus suspected deep down, evacuated by different incisions, whereby some foul air bubbles escaped, the latter being perhaps the cause of an already diagnosed emphysema of the lymphatic vessels of the thigh.

On March 9, after washing the wounds, the whole tibialis anticus was pulled out, and on the next day the extensor hallucis longus and extensor digit. communis. These muscles were totally necrotic, and of a peculiar waxy color. The microscopical examination showed at their upper end a small amount of blood coloring matter and blood crystals. The disease now ran a very favorable course. The patient had to wear a splint for compensating the superior force of the triceps suræ, all the extensors being wanting.

Here of course the question arises. What is the cause of this muscular necrosis, which is so seldom met with?

Lücke thinks that in this case a partial rupture of the fleshy part of the muscles with simultaneous separation of the periosteum of the tibia had taken place, and besides, perhaps by thrombosis (the above mentioned plug confirming this idea) the circulation and nutrition had become interfered with. The pulsation of the dorsalis pedis could always be felt.

## CASE OF—HERNIAL SAC OF THE STOMACH.

Pauly presented a hernial sac which could contain 2 lbs. of water, which he had extirpated (Christmas, '77,) from a domestic 43 years of age, and which could easily be replaced but could not be retained by a ligature.

The hernia, which was a left inguinal, had existed for about 13

years, came nearly half way down the thigh and had a circumference at its base of 37 centimetres. After it had been replaced, the examiner was able to place four fingers within the large hernial canal.

The case without any doubt indicated an operation for radical cure. Thanks to the antiseptic method, an honored operation has again been performed after Czerny's plan, which consists in destroying the hernial sac and closing the hernial opening.

Pauly lays stress on two things:

1. To open the hernial sac before ligating, because after a replacement appears perfectly exact, a small sling of intestine might be injured very easily.

2. The extirpation of the hernial sac in similar cases is the simplest method, especially in women, where the sac is but little adherent.

In children he recommends Riesel's proposition, to open the hernial sac, to tie it at the base and let it degenerate to a mass of connective tissue.

Concerning a suture it is absolutely indicated, where the hernial opening is very wide.

Pauly's case did not head per primum intentionem on account of an insufficient excision of skin in the genito-crural fold. The temperature never rose above  $101.3^{\circ}$ , suppuration moderate and closing the hernial opening firmly.

He has occasionally performed with good results the operation of herniotomy for an incarcerated hernia, and therefore recommends it.

#### KOCH, OF BERLIN, ON NECROSIS OF BONE BY EMBOLISM.

Koch concludes from the distribution of the best known nutrient artery *i. e.* the *arteria nutritia tibiae*, that all the nutrient arteries can not be endarteries in Cohnheim's sense, and communicates experiments, which decide, if these arteries are functional endarteries or not. Ligating the *arteria nutritia tibiae* immediately before its entrance into the canal, caused neither a hemorrhagic infarction nor a perceptible interference of nutrition of the marrow. Producing artificial embolism of the larger branches of the nutrient artery with coarser masses remained likewise ineffective.

Necrosis after introduction of foreign bodies in these arteries only arises 1. when those foreign bodies are impregnated septically or 2. when they are distributed so fine, that they can advance into the capillaries. In the latter case it is necessary to obstruct the main trunk of the artery going from above downwards the capillaries of the lower end of the tibia and to produce an *osteo* periostitis and *osteomyelitis*, which first of all appears in the region of the malleoli, and leads to an ichorous inflammation of the ankle joint.

But even if only very small quantities are introduced, the *osteomyelitis* becomes diffused and leads to necrosis at least of the whole diaphysis.

The author closes with the remark, that after the experiments, which he made in the physiological laboratory of Prof. Munk, the question, if pseudoarthrosis or delay of formation of callus could be



caused by an injury of the nutrient artery, has to be decided upon in a negative sense.

Dr. Koenig calls attention to the case published in 1876, where he had necrosis at six symmetrical places. He did not know, if the necrosis depended upon an embolism of symmetrical arteries, or upon disturbance of the vasomotor system within symmetrical regions.

*Gussenbauer* says that after Panum the suppuration, which follows the obstruction of the capillaries with mercury is caused by the irritant effect of the metal. He refers to his paper on choliolinerperitis of the workers in mother of pearl, which is also caused by embolism of the capillaries of the marrow.

*Koenig* considers mercury as a chemical irritant, but thinks, that the necrosis, referred to by Koch is nothing, but the result of a septic process.

*Koch* asks for proof, that mercury being carefully purified (and he has only used the purest) is a chemical irritant. He knows of no proof and sustains his theory, that mercury in his experiments had nothing more, than a mechanical effect. The suppuration which Panum observed after capillary embolism, ought to be defined in the same way; greater districts become deprived of their nutrition, die and are thrown off by the reaction of the neighboring organs. When he killed the animals on the second or third day after the experiment, he always found a healthy line of marrow, which separated the inflamed lower end of the tibia from the operation wounds, proving, that the latter could not be the cause of the necrotic inflammation.

The operation wounds were almost always found in a very good condition and healed per primam intentionem, whenever the inflammation commenced at the malleolus.

During the operation, he used the antiseptic treatment; afterwards he treated the wounds by the open method.

#### DR. RUDOLPH JOUVA, ON Pelves WITH ASYMMETRY OF THE LAST LUMBAR AND FIRST SACRAL VERTEBRÆ.

Rudolf demonstrated by photographs different pelves, where on some the last lumbar vertebra of one side has become the first sacral. In others, the first sacral vertebra of one side has become the last lumbar i. e. on this side not united with the other sacral vertebræ.

The first variety of pelvis (not the second) is first mentioned by Rokitansky, who calls attention to the asymmetry of the pelves resulting therefrom. This asymmetry, however, is very unimportant, more important and striking is the uneven level of the other vertebræ and the scoliosis resulting therefrom. At the same time the spine and the crest of ileum stand higher on one side than on the other. This cause of scoliosis is very little noticed, for example, in Bardeleben's handbook it is not mentioned at all; we find there a scoliosis habitualis explained, (by Dr. A. Eulenburg, beginning in the lumbar vertebræ and resulting from the prevailing use of the right lower extremity, and as a consequence thereof a stronger development of

the muscles on this side, and extension and relaxation on the other.

The diagnosis being very difficult to make in the living, we find perhaps the explanation therein, that this cause has not been considered sufficiently.

Prof. Ried, by whose kindness Riediger received these pelves, diagnosed this variety of scoliosis sixteen times. The differential diagnosis between the two depends on the different position of spine and crest of ileum of the patient when sitting. In the latter variety the position of spine and crest are on a level, but in the first mentioned one the level of spine and crest remain uneven in the sitting position of the patient.

A correct diagnosis in this case is very important for therapeutic measures, the ordinary braces for scoliosis have here no value at all. Gymnastic exercises for strengthening the muscles are indicated.

Prof. v. Langenbeck expresses his opinion, that the scoliosis caused in this way has been known for a long time and is not so very rare, and that it is of the greatest importance to interfere in its initial stage. He had found the best results from directing young ladies to ride on horseback with the right or left leg according to the case hanging over the fork.

#### MADLUNG, OF BONN—SPONTANEOUS DISLOCATION OF THE HAND FORWARDS.

Besides a traumatic or pathological dislocation we find a spontaneous subluxation, where without any previous injury or inflammation, the hand, out of its junction with the carpus and radius, drops downwards to the palmar side. This variety of dislocation its development being a problem is by no means very rare, although its description till now has been very poor.

Madelung demonstrated by plaster casts marked degrees of this affection and its anatomical symptoms. Besides these marked cases and the normal position of the hand to the forearm, we find a series of abnormal positions. The greater number belongs to the female sex, to the working class, of an age between 14 and 22 years. In the very rare cases, where this trouble came on in later years, different causes could be found, generally interference of nutrition of the other parts, for instance fractures, tendovaginitis treated by fixed dressings. When this variety of dislocation commences to develop, we observe moderate but sometimes severe pain around the wrist, and its function is disturbed. In all the slight cases, or in those where the dislocation has already taken place, all the pain is gone and the dorsal flexion prevented in consequence of the changed position of the bony parts.

Madelung considers (based on his clinical observation) these spontaneous subluxations of the hand as analogous to scoliosis, genu valgum or pes planus, and calls it *manus talga*. He thinks it is caused by heavy over-work of the growing bony parts of the hand, which necessarily is followed by an interference of nutrition. Upon discussion, von Langenbeck considers the name *manus talga* improper, and relaxation of the ligaments as the cause of this affection.

## SUMMARY, BY LUTHER, ON RESECTION OF LARGE INTESTINE.

On Dec. 6, '77 he was called to a patient in Brussels, who had complete obstruction of the intestines, caused by a tumor, which developed itself in the left side of the abdomen. Meteorismus, everywhere slings of the small intestines distinctly marked out, and symptoms of incipient peritonitis, in consequence whereof the tumor could not be diagnosed. The attending physician thought it to be in connection with the small intestines.

Suspecting a tumor of the large intestines he examined the rectum after Smock's method and found in the lower end of the descending colon, above the sigmoid flexure, a tumor, freely movable, of the size of a man's fist.

Different attempts to dilate the stricture had no result and both physicians soon concluded, that the intestinal circulation could be re-established only by an operation. They rejected colotomy, (next thought of because the union of the tumor with the small intestines did not give a safe guaranty of complete recovery of the intestinal circulation by an artificial anus.

A radical cure (as approved by the autopsy) was only possible by a resection of the other portion of the large intestine, an operation requiring, selfevidently, laparotomy.

Under other circumstances such an operation would not have offered any technical difficulty but here the operation could only be successful by a productive opening of the abdomen, not only on account of the present meteorismus and intestinal prolapsus, but also to facilitate a quicker and safer operation. He operated on Dec. 8. by opening the abdomen in the median line by an incision extending from about one inch below the umbilicus to the symphysis pubis and a lateral incision commencing at the same place, and going to the fossa-lumbo-dorsalis, and laying over the flap to the left. He convinced himself of the correct diagnosis and found the tumor also united with the small intestines. During the operation he followed the antiseptic treatment in its minutest details and took all the possible precautionary measures, concerning prolapsus, drainage, etc., etc.. Having the prolapsed intestines evacuated from gas by capillary puncture and covered with warm sponge, he separated the tumor, which he had to open and which he closed again without any trouble by 3 catgut sutures. The separation from the mesenterium required the ligating of 3 arteries. Finally he resected the colon descendens, whereby it unfortunately had been torn, its contents flowing into the peritoneal cavity. The digital compression of the colon above and below the tumor being, in consequence of its adhesion with the posterior wall of the abdominal cavity, very difficult to perform, it was impossible, to prevent this accident. To prevent a further discharge of the intestinal contents in the peritoneal cavity he rapidly rolled the patient onto the left side, leaving him in this position, until a piece of intestine 4 inches in length had been resected. Hemorrhage was very easily controlled and the ends of the intestines soon reunited, the latter being done by Lamberts modified intestinal sutures. The peritoneal cavity being washed as thoroughly as possible, he closed the wounds, leaving in 4 drainage



tubes with a cover of Listers dressing. During the operation, which lasted for about 2 hours no sign of collapse or vomiting had set in. Patient awoke half an hour after the operation and a few hours later he had a good passage.

Up to the 10th hour after the operation the disease ran a very favorable course; the patient took some warm wine soup, his pulse was strong and only very little accelerated, he had a moderate transpiration after a sound sleep of a few hours and apparently recovered. After this time the pulse became frequent, collapse set in and the patient died 15 hours after the operation of acute septicæmia, caused by nothing, but the contamination of the peritoneal cavity with the contents of the intestines.

Schede once performed resection of the colon descendens for carcinoma, but he did not succeed, his patient died of peritonitis.

Thiersch lost a patient after the same operation and states, that it is very difficult to find the diseased portion by an incision only in the median line on account of gas and diarrhœal contents of the intestines.

Kocher resected with success in consequence of gangrene of a femoral hernia, in a woman, a large piece of intestine the wound healing perfectly in 4 weeks. Czerny recommends, that operators and their assistants should practice this operation carefully on animals. He recommends also catgut sutures to be applied in two layers to gain a greater area for union.

[I herewith conclude these abstractions, which of course cannot be compared in any way with the transactions, published later on in extenso. I think it is the duty of a weekly paper on account of the great importance of this matter to the practitioner, to give such articles as soon as possible, even if in a condensed form.

The great fundamental question, not long ago so severely disputed by many great men, is now to be looked upon as resolved, and nobody doubts any more, that every surgeon is obliged to use the antiseptic treatment. The communications on thymol and on the symptoms of intoxications by carbolic acid are of the utmost importance, especially for the practitioner.

The expectations of thymol by many able men are not fulfilled. Prof. Bardeleben, and especially Prof. Ohlshausen, the latter having twice successfully operated with thymol in ovariectomy, gave it up and commenced the use of carbolic acid again. Other distinguished surgeons also made the experience, that thymol was not able to produce a totally aseptic course of a disease; suppuration set in soon and after the use of carbolic acid at once an antiseptic result was gained.

Concerning the poisonous properties of carbolic acid in surgical applications it is very important, that two distinguished surgeons, two close observers, who dispose of an immense amount of material, Prof. Bardeleben and Prof. König, do not estimate the danger of carbolic acid.

A new classification of tumors had not been arrived at. On motion of Prof. von Langenbeck a committee consisting of the follow-

ing professors—von Langenbeck, Thiersch, Esmarch and Lücke—have been appointed to resolve this problem. C. SCHOLZEMANN.]

## NEWS ITEMS AND NOTES.

**Coca or Cuca.**—In a leading article appears a review of the practical applications of this drug in fatigue proceeding either from physical or mental over-exertion. The writer bases his deduction on Sir Robert Christison's experiments, on similar experiments by Von Tschudi and others, and on observations in South America by Mantegazza; he does not attach much importance to earlier and somewhat exaggerated accounts of Europeans who have visited South America, and who have picked up their information from the natives, without making any original investigation. These deductions may be concisely stated :

1. Coca is a stimulant without increasing the pulse rate or body heat; on the contrary, the pulse rate usually falls, even after muscular fatigue,—in Sir Robert Christison's experience from 90 to 72 beats after two hours. 2. Coca suspends hunger and thirst. 3. Coca in moderate quantities is not followed by injurious or unpleasant after-effects. 4. The best effects are obtained by chewing dried leaves if properly cured mixed with lime, though there is no reason to suspect that a carefully prepared infusion or vinous preparation does not contain the active principle, which our writer supposes to reside in a peculiar form of tannin,—perhaps also in an aromatic and volatile substance. 5. In various forms of dyspepsia, colic, diarrhœa, and general debility it has long been a favorite among the Indians, and Mantegazza reports his own experience of its value in most of these affections. Drs. Colin, Fauvel, Gazeau, Rabuteau, and Cintrat bear witness to the value of this medicinal agent, especially in the form of *vin de coca Mariana*, in tonsillitis, albuminuria, and diabetes. Dr. Fauvel especially speaks of its beneficial effects in a peculiar form of rebellious granular pharyngitis, which resisted all other kinds of treatment. He also says, "Coca is the tensor, *par excellence*, of the vocal cords."—*Medical Examiner*.

**Analysis of Suits for Malpractice.**—Dr. Sanger, of Bangor, Maine, presented certain facts respecting malpractice suits in Maine to the recent meeting of the Maine Medical Association. By correspondence with other physicians he has collected seventy cases of malpractice suits and fifty-five threats. Of the seventy who were sued for damages of from \$1,000 to \$25,000, six paid from \$100 to \$350 rather than stand trial, and nine were cast in damages for malpractice of from \$103 to \$2,000. The nine plaintiffs who compounded were not worth anything. Eight of the nine who got damages were not worth a dime, and all but six of those who failed to sustain their suits, were worthless. Out of seventy prosecutions, only seven were able to pay taxable costs, and very many of them were drunken and shiftless persons. One in eight got a verdict for damages. The total paid on the verdicts for damages was about \$6,500, and as many of the suits were long and expensive,

it is probable that more than one-half of the sum was devoted to expenses, leaving about \$3,000 to be distributed.—*Detroit Lancet*.

**Alcohol in Fever.**—Testi Alberico gives as the result of his clinical investigations on the action of alcohol, first, that alcohol does not produce any depression of temperature when given in febrile states of the system, though high temperatures do not *per se* constitute any contra-indication to its use. Second, alcohol as long as it remains unaltered in the system is a powerful dynamic of the vaso-motor nervous system. Third, as a consequence of the changes which alcohol undergoes in the system it indirectly becomes a valuable aliment, whilst it augments the metamorphosis of tissue.—*Boston Med. and Surg. Jour.*

**On Abscesses at the Verge of the Anus.**—Verneuil *L'Abécille Médicale* recommends that in opening such abscesses, when they are close to the rectum, the operation for fistula should be performed at the same time.

**The Assimilation of Quinine.**—M. Personne finds that about one-half of the quinine taken by the mouth is destroyed in the system. He found that all the quinine which is eliminated by the urine and soluble in acids can be transformed into neutral sulphate of quinine without appreciable residue; also that a resinous material is obtained, insoluble in acids and similar to that which is obtained during the extraction of the alkaloids of cinchona. Hence it is inferred that the quinine which is eliminated by the urine, about half the amount ingested, has not undergone any appreciable modification.

**Antagonistic Effect of Atropine and Pilocarpine.**—Luchsinger reports (*Chl. f. Chirurgie*, 1878, No. 16; from *Pflüger's Archiv*.) experiments upon cats which seem to show that atropia mixed with pilocarpine abolishes the excitative effect of the latter. If the proportion of pilocarpine be augmented, the paralyzing action of the atropia may be overcome.

**Ammoniacal Sulphate of Copper in Epileptiform Neuralgia of the Face.**—Frere, of the Laribosière, has found this, in doses of about 1 grain twice a day, succeed well, when other means had failed. In one case 10 centigrammes were given at one dose.

**Threads of Whale Tendon as a Substitute for Catgut.**—Baelf (*Centralb. für Chirg.*) following Dr. Ichiguro, of Japan, the inventor, recommends these threads. From experiments, he states that they are more rapidly and more completely absorbed than catgut ligatures. He finds that this absorption is assisted by steeping them in the oil of the whale's liver. In operations he finds them more flexible than catgut, and from experience, considers that the only objection that could be made to them for ligaturing arteries, viz., that the absorption would be too rapid, is unfounded, and besides, could be got over by torsion of the arteries.



**The Abortive Treatment of Whooping-Cough.**—In 1868 Prof. C. Binz, of Bonn, recommended for this obstinate complaint a solution of quinine and tannic acid. *Jahrbuch für Kinderheilk*, i., p. 233; and Dr. C. F. Swan, of South Chicago, Ill., states in the *Chicago Medical Journal and Examiner*, that he has adopted this remedy with great success in many cases of whooping-cough. The formula consists of a solution of quinine and tannic acid, 4 gms. of the former to 1 gm. of the latter, in water, syrup, licorice, &c.; and it is to the local action of the quinine upon the fauces and glottis, as well as to its anti-spasmodic virtues, that the favourable results are attributed. Of 40 cases of whooping-cough in which this remedy was used, 3 were so mild as to require little or no treatment. No record is given in 6 cases; and 6 children refused the medicine in consequence of its bitter taste. Two died of spasm of glottis and marasmus respectively. Deducting the 17 cases from the 40, we find 23 left. Of these 23, 3 received no benefit, and 2 but little benefit from the quinine and tannin. *But in the case of the 15 patients not heretofore considered, the disease was completely aborted in an average period of 3.8 days*, 3 of the cases being complicated by pneumonia, and 2 by capillary bronchitis. Due allowance being made for the limited number of observations, Dr. Swan thinks it not unreasonable to conclude that the use of a solution of quinine and tannin internally in whooping-cough may be employed with advantage in many cases; and that in nearly 60 per cent. of the little patients who can be persuaded to swallow it, the disease will be completely arrested in about four days.

# THE HOSPITAL GAZETTE

AND

## ARCHIVES OF CLINICAL SURGERY.

A WEEKLY JOURNAL OF MEDICINE, SURGERY AND THE COLLATERAL SCIENCES.

EDITED BY

EDWARD J. BERMINGHAM, A.M., M.D., and FREDERICK A. LYONS, A.M., M.D.

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### LECTURES.

#### A CLINICAL LECTURE ON TREPHINING FOR COMPOUND FRACTURE OF THE SKULL AND REMARKS ON A CASE OF DISLOCATION OF THE ELBOW JOINT.

Delivered at the Hospital of the University of Pennsylvania.

BY

JOHN ASHHURST, JR., M. D.

Professor of Clinical Surgery in the Medical School of the University of Pennsylvania.

(Reported for THE HOSPITAL GAZETTE.)

This man was brought into the hospital two days ago, early in the morning. The night previous, at what time exactly, no one seemed to know, he had attempted to jump from an express train at Bristol, and in falling had struck his head against a water-tank, producing an injury which rendered him unconscious. Dr. Hunter saw the man immediately after admission and diagnosed a very extensive and serious fracture of the skull connecting with a large external wound. The wound was on the left side of the head, and a large piece of the left orbit was found to be depressed and pressing directly upon the brain substance. There was very extensive bleeding and quite a quantity of the gray matter was escaping. The man lay utterly unconscious except when roused, and that could only be accomplished by violent shaking.

The question was immediately mooted as to the propriety of operative interference in the case. Should we, or should we not apply the trephine? Upon exploring the wound cautiously with a probe, I found that the fracture was impacted, there being a certain portion of loose bone which could be removed with the forceps.

Dupuytren, a distinguished French surgeon, has divided the sequestra of fractures into primary, secondary, and tertiary. In the first class the pieces of bone are all entirely loose, and can be picked out with a pair of bone forceps. In the second class some are loose and some are tightly attached. In the third class the pieces of bone are so tightly impacted that it is impossible to extract them. The pieces are to be removed in primary fractures; may or may not be removed in secondary, and must be allowed to remain in tertiary fractures. This

rule is our guide in the treatment of many fractures of the extremities.

What are the objects to be gained in trephining for fractures of the skull? They are: 1) to elevate the depressed fragment; 2) to remove splinters and so prevent inflammation of the brain; 3) to expose cerebral blood vessels and tie them in case of hemorrhage.

In a *simple* compound fracture of the skull, in which the bone is impacted and in which there is no communication between the brain and the outer air, the depression cannot be very great, for the outer table cannot be depressed below the level of the inner table. An impacted fracture of the brain is a subossous fracture, and is very much less serious than a fracture in which both tables of the skull are broken and the air so gains access to the brain. The general rule in an impacted fracture is not to trephine.

If, on the other hand, the air has already gained access to the brain substance, then all the harm that can be, has already been done. Here the air has already gained access, for a fragment in the upper orbit was felt to be loose and was removed with the bone forceps. Following the removal of this orbital splinter an additional amount of brain substance escaped. Although we found direct communication between the air and the brain, we had not room enough in which to remove the splinters, clots, etc., so we applied the trephine so as to get more room. After trephining I removed a very large depressed fragment. Right beside this depressed fragment I came across a delicate splinter of bone deeply embedded in the brain; this I removed with forceps.

Exploration showed us that there were extensive lacerations of the membranes and of the brain itself. On introducing my finger through the external opening I felt a large hole extending through the roof of the left orbit into the intra-cranial space. Having removed all the fragments I closed the post orbital part of the wound with sutures. This was perfectly sound surgery. The rest of the flaps I simply laid in place. The anterior temporal artery, which was torn and bleeding, we ligated at both sides of the lesion.

Our treatment at first was by calomel and opium—one quarter of a grain of calomel and two grains of Dovers' powder were administered every two hours—the patient was able to swallow. Locally, cold applications were made to the head, first a wet towel, and then a small bladder filled with cracked ice.

Before the application of the trephine, the patient, except when forcibly aroused, was comatose, and when his mouth was closed there was a peculiar whiffing movement at the right corner of the mouth with each breath. This sound, which the French call "*fume de sa pipe*" from its very close resemblance to a movement of the lips produced in smoking a pipe, is very significant of deep coma, being very frequently noticeable in cases of apoplexy. It is due to a partial paralysis of the buccinator muscle. This sound disappeared after the operation, showing that the paralysis, at least, had been removed by it.

This case is without doubt a very serious one. I have no doubt but that the man will die, and that very soon. All such lacerations as those present here are serious. Injuries of the parietal or temporal



bone are not by any means so dangerous as those of the frontal. I remember one case of very severe fracture of the parietal bone in which there was no impaction. Trephining was resorted to and as a result the man had a prolonged attack of cerebral meningitis and cerebritis attended with frequent convulsions. He finally, however, managed to pull through, and made a rapid convalescence. When the injury is far back, the prognosis is much more favorable than when it is in front.

Even in this case, if the fracture only involved the outer table of the skull the prognosis would not be near so grave.

Upon examining the poor fellow's eyes closely I find that the right pupil is dilated and the left contracted. I am afraid, however, that we cannot obtain much insight into the case from the state of the pupils. Some say that difference in the size of the pupils is a distinction between compression and concussion of the brain, but I do not believe in this.

There is no paralysis anywhere. Ever since the time of the operation the patient's temperature has been steadily increasing. It was  $102\frac{2}{3}^{\circ}$  yesterday morning, last night it was over  $103^{\circ}$ , and this morning it was  $104^{\circ}$ . Yesterday the man's breathing was good, now it is impaired. Sometimes quite a considerable time elapses between two breaths. The centres of respiration at the base of the brain are affected, and so every now and then the need of breathing is not felt for several moments.

The prognosis, as I have already said, is very bad, any severe injury of the orbital region is generally fatal. Particularly unfavorable symptoms are the increasing coma, the gradually increasing temperature, the irregular respiration, and the very rapid pulse—180 to the minute.

The injury is very plainly a laceration of the brain, but how extensive no one can say. There may, perhaps, be some fissure involving the base of the brain. There was not any bleeding from the ears or nose. There is, indeed, some slight conjunctival ecchymosis on the left side, but this is evidently due to the injury on the left cheek, and not to any central lesion. There is, in fact, no positive evidence whatever of involvement of the base of the brain.

I have already said something to you regarding the proper treatment of the case. Of course the man must be kept quiet, and in a well-darkened room. Opium is, I think, of exceeding value here. It is of value in all cases of injury to the brain. As the man's coma is deepening so rapidly I will order the opium discontinued. For the purpose of purging the patient, and so, if possible, diminishing the coma by producing a derivative effect, I have told the assistant to give him a dose of calomel, six grains, and to follow it by a turpentine enema. The ice, of course, must be kept in close contact with the brain.

Regarding the matter of diet, some very high authorities recommend a starvation diet; some, quantities of barley water at long intervals. I think that it is a great deal better to give abundance of nutriment,—milk as freely and as often as the man is able to take it.

[The patient died on the day following. A post-mortem examination of the cranium showed oblique fractures running across both of the orbital bones—the triangular piece of bone between the orbits being so loose that it could be lifted out with the fingers.—R.E.P.]

#### DISLOCATION OF THE ELBOW JOINT.

This injury is very liable to be confused with fracture of the humerus just above the condyles. To determine between these two a line must be drawn across the three processes at the joint, the two condyles and the olecranon. In health these three projections are all in a straight line. If it is a dislocation, however, the olecranon is thrust far back out of the line. We make use of this same plan in diagnosing fracture of the hip.

There is very evidently a luxation in this case. I have had the man etherized, as the reduction would be very painful otherwise. The dislocation is lateral, for the olecranon is thrust outwards. You will often be called to see cases in which the lateral and backward luxation are combined. In such a case the lateral dislocation must be reduced first.

As regards the proper treatment for luxation, in a child, manipulation skillfully applied will be all that is required. The child must be etherized, of course, and the arm then drawn out to its full extent. This manner of reduction is not practicable, however, in the adult, and the usual method employed is that first proposed by Sir Astley Cooper. The dislocated elbow is bent forcibly forwards over the knee of the surgeon. When this is done the olecranon slips back easily into place. As I cannot very readily apply my knee in this case Dr. Hunter makes pressure with his hand in the hollow of the elbow while I draw the forearm out and away. This simple procedure has entirely reduced the luxation. The test of the completeness of the reduction of the luxation in all these cases is to endeavor to flex the forearm beyond a right angle. If this can be done, the luxation has been properly reduced. A very usual accompaniment of dislocation of the elbow joint, and something which is very liable to be overlooked, is a fracture of the head of the radius. A most careful examination made by myself and Dr. Hunter has convinced us that this fracture does not exist here.

To keep the bones in place until the joint is once more firmly established, I shall apply an anterior rectangular splint, taking care to see that it is well padded.

I do not know how it came to pass, but complicating to some extent the dislocation, the man received a small punctured wound of the flesh and deep tissues in the hollow of the elbow. It is barely possible that this wound extends all the way to the joint, and so forms a path of communication between the joint and outer air. I might settle this point by probing the orifice, but I will not do so lest I might thus set up a connection which may not already exist.

## A CLINICAL LECTURE.

Delivered at the Pennsylvania Hospital, Philadelphia.

BY

JOHN FORSYTH MEIGS, M.D.

Visiting Physician to the Pennsylvania Hospital.

(Reported for THE HOSPITAL GAZETTE.)

## OPHTHALMIA NEONATORUM.

This is a very troublesome complaint, and one usually extremely hard to cure. The patient, this fragile little thing, is this woman's first child. It was born two weeks ago while its mother was insensible. It was weaned within a week after its birth and has been fed since then on condensed milk and water— $\frac{3}{4}$  ss of the milk to Oss of water. The mother tells me that the effect of this diet has been to render the baby's stools very frequent and very offensive. To-day there is scarcely any discharge from the eyes, but several days ago, when it was first brought here, there was an abundant yellow, purulent discharge.

Now, gentlemen, what has been the cause of this baby's diarrhœa and ophthalmia? Undoubtedly the fact that it was weaned so soon from its mother's breast. Take it as a general rule, a child should never be weaned until the very last moment, until it is absolutely necessary. Because the mother's nipples were flat and because she did not think that there was much milk in her breasts, the doctor at the Women's Hospital told her that she had better wean the child and put it on condensed milk. If any of you are acquainted with the process of manufacturing condensed milk you will see at once how entirely inadequate to the support of the baby was the almost microscopical amount of nourishment afforded—one-half a teaspoonful of condensed milk to half a pint of water, one part of milk to one hundred and twenty-eight parts of water! Condensed milk represents milk condensed from four parts to one by evaporation. To the resultant mass an enormous quantity of cane sugar is added— $41\frac{4}{10}$  per cent. of sugar and  $7\frac{1}{10}$  per cent. of sugar of milk by the Anglo Swiss Company, and from  $37\frac{6}{10}$ – $43\frac{4}{10}$  per cent. of sugar by the American Company. This sugar is added for the purpose of preserving the milk. The sugar is the largest part of the nourishment of condensed milk. The usual proportion of condensed milk to water is one to twenty-four,  $\frac{3}{4}$  j of condensed milk to  $\frac{5}{8}$  iij of water.

This woman came and brought her child with her to this hospital five days ago. What was the first thing we did. We insisted that the condensed milk should be laid aside and that the woman should put the child to the breast every two hours. It is the love of the mother for her child which makes the milk flow to the breasts. As soon as the baby was put again upon its natural nourishment the state of its bowels began to improve.

For the ophthalmia we made use of a solution of nitrate of silver (three-quarters of a grain to the ounce). This we injected under the lids twice a day. For the lids themselves we employed the following:



R

Sodæ boratis,	gr. xij
Zinci sulphatis,	gr. j
Aquæ camphoræ,	f ʒ j
Aquæ destillatæ,	f ʒ j

M. S. To be applied to the lids two or three times a day.

The eyes are now a great deal better. We also tried with very great success a plan of treatment highly recommended by Mr. Dickson of London, viz:—The injection between the lids every half hour of a solution of alum (from five to eight grains to the ounce), the strength of the solution to be gradually diminished as the case gets better.

As regards the mother, she says that since she has been nursing the baby regularly her breasts have improved very much. I insisted that she should, from the moment of her admission, take a quart of milk every day regularly.

I find upon inquiry that the father of this child is very delicate. Ophthalmia, as you may know, is supposed to be a deposit on the eyelids of the child of a discharge from a diseased vagina. I could not find anything of the sort in this woman's case.

#### ANTIFLEXION WITH GENERAL FAILURE OF HEALTH

The patient is a servant girl, twenty-seven years of age. She is very pale and miserably broken down in appearance. Her tongue is not much furred, but the yellowness of her conjunctivæ shows a faulty condition of the hepatic secretion. The root of all the evil in this case is uterine disease, the cause of so many women's miseries. Years ago this woman had muscular rheumatism and she has been troubled with rheumatic pains ever since. Her menstrual flow began at the age of twenty and has always been the occasion of great pain, in some instances of fever. The discharge is usually very scanty and always irregular, running from ten days to three weeks. Accompanying the flow there is supra-pubic pain. The woman is, in fact, demoralized and ruined by pain.

Speaking of pain, what a strange, mysterious thing it is! How much have I wished, and how often, that I could only enter my patient's inner consciousness but for a moment and feel his or her pain, as he or she felt it! It is so hard to describe a pain and yet it is so often such a valuable and important element in diagnosis. How much some people are affected by pain and how little of its significance can be gathered from their groans and restlessness.

I was once called in, many years ago, to see a coachman in the employ of a friend of mine. I found him in bed looking strong and well, tongue and eyes clear, heart and kidneys normal, appetite excellent, his only symptom a terrible pain in the small of his back which never left him—so at least he told me. I questioned him closely, examined him carefully from head to foot, auscultated every part of his abdomen, expecting, perhaps, to find some aneurism or tumor pressing upon the nerve-roots at their points of exit from the spine, but could discover nothing. All I could do was to give him an anodyne and await de-

velopments. Again I was called to see him a month later. Still the same old, constant, racking pain in his back, and now the man looked thin and weak, his eyes were sunken, his pulse weak and fluttering. Again I put my ear to his abdomen, pressed it as far back as I could, and listened, still I could hear nothing. "Mrs. ——" said I, "Your servant has either an aneurism or a tumor pressing on his nerve-roots and causing him this exquisite pain, or else he is hysterical, and for the life of me I cannot tell which it is." A week later he had been brought into this hospital and Dr. Gerhard, then one of the hospital staff, had diagnosed the case as one of aneurism of the abdominal aorta. In two days the man was dead.

But I have been led aside from my discussion of the symptoms of our patient. Six months ago the pain became constant, and the woman had to stop all work. Her bladder could not hold more than  $\frac{3}{4}$  ij of urine at a time, and she was obliged to pass her water twenty or thirty times a day. I had the urine examined, and found it entirely natural: specific gravity normal, and all the contents those of the healthy fluid. There was evidently nothing the matter with her kidneys, or bladder. I ordered for her  $\frac{3}{4}$  ss. of the compound gentian mixture three times a day.

Then I proceeded to make a vaginal examination. I found the uterus a little lower than natural. The cervix was of the natural shape but soft. The os tincæ, too, looked downwards and forwards instead of downwards and backwards towards the perineum. The long axis of the uterus ought to be in the long axis of the superior straight.

You all know that there are four so-called cul-de-sacs in the female—the anterior, posterior, and right and left lateral. In examining these cul-de-sacs by means of my finger, I find the posterior and two lateral cul-de-sacs entirely normal, but in the anterior cul-de-sac, that is between the uterus and the bladder, there was a little swelling which I at once determined to be due to ante flexion of the womb, my finger touching the ante flexed fundus. I took a Simpson uterine sound and curved it strongly, and after failing to introduce it through a speculum I finally succeeded in passing it in along my finger used as a director. I found the womb to be two and a half inches in length and very decidedly ante flexed. Together with this ante flexion there is some catarrh of the bladder and the woman is undoubtedly anæmic and hysterical, and suffers from great constipation.

Now a great many men in such a local condition as we have here would insert a pessary, but not I. I do not like to put a foreign body in a woman's vagina. Peritonitis and pelvic cellulitis have been induced by the simple introduction of a sound and in one case by the mere application of leeches to the uterus. The first thing to do is to build up the woman's general health. Let her rest for a month, or so. Three times a day we shall give her gr. iv of the ammonio-citrate of iron with gentian. Then in addition, I have been trying with excellent effect the following prescription very highly recommended by T. Gaillard Thomas, Erasmus Wilson and others, viz:

R.

Magnesi sulphat.,	℥ vj
Acid sulph. dil.,	℥ ij
Ferri sulph.,	gr. xij
Quiniæ sulph.,	gr. xij
Syrupæ zingiberis,	f ̄j
Aque q. s. ad.,	f ̄j vj

M. S. A tablespoonful in ice-water three times a day.

Besides remedying the constipation, this mixture invigorates the appetite and promotes the general health.

Another very important item of our treatment is diet. The woman must take a quart of milk a day and plenty of bread and butter, and good, rare meat.

But how, you will ask, do I intend to cure the antelexion? Why, by making the woman teach her bladder to hold gradually more and more urine. The more urine the bladder can be made to hold the more thoroughly will the antelexion be reduced. Nine-tenths of her constant micturition is fanciful. There is no impediment whatsoever to the bladder doing its proper work; it should be made to hold first four, then six, eight, ten, and finally twelve ounces of urine. When it can hold twelve ounces the antelexion will be largely reduced.

#### CHRONIC BRIGHT'S DISEASE WITH PATULOUS AORTIC VALVE.

This patient is an unknown man and was brought to the hospital by some Good Samaritan who had found him lying unconscious in the street. His condition upon admission was that of entire unconsciousness, his pupils were contracted and his breathing stertorous. His pulse was full and no marked heart sound could be detected. The radial arteries were both found to pursue a very tortuous path and to beat visibly. Upon examining the urine it appeared clear, acid, specific gravity 1020; no tube casts present, but fully one-sixth of its bulk was found to consist of albumen. There have been no convulsions at any time. The fæces have been passed involuntarily.

I saw the man very soon after admission and ordered gtt. ij of croton oil to be given to him in a teaspoonful of olive oil. This operated several times. In addition to the above he was given, viz:—

R.

Spts. chloroformi B. P.	gtt. x
Acid benzoici,	gr. ij
Potassii bicarb.,	gr. x

M. S. Every two hours in water.

I was sure from the coma and stertorous breathing and from the condition of the urine that I had a case of complicated Bright's disease to deal with. The urea in this disease is converted into carbonate of ammonia which poisons the blood. Attending this ammonia poisoning there is always more or less cerebral anæmia which produces the coma and convulsions. The experiment has often been tried of tying the carotids and vertebral arteries in an



**animal.** The first effect produced is insensibility and great contraction of the pupils. This state is followed by that of dilatation of the pupils, coma, convulsions or death. Judging from the very favorable action which chloroform exerts in hysterical convulsions I thought it would do good in this case. The benzoic acid has, as you all know, a very excellent effect upon the kidneys.

For sustenance the man has been given three pints of milk and one pint of beef tea. These articles of diet are not, of course, administered in bulk but in small quantities at short intervals. Besides the milk and beef tea I gave f 3 j of alcohol. I did this with some hesitation, fearing that it might interfere with the depurative action of the kidneys, but also fearing that the man was too weak to rally without it.

The resident injected some atropia into his eyeball but could not dilate the pupil sufficiently to examine the eye ground with the ophthalmoscope. Up to the time of the injection of the atropia the pupils were very much contracted.

Some of you may ask me whether this is not a case of opium poisoning. The contracted pupils seem to point in that direction, but I made up my mind that it was not opium poisoning from the fact of the paralysis which I shall next speak of and the stertorous breathing.

You notice that the eyes and mouth both diverge towards the left. The right side of the mouth is plainly paralyzed, so too are the right arm and right leg, the leg less so than the arm. The man is still dull and inattentive. His respirations are forty-four to the minute, and his pulse 116. Notice this very peculiar condition of the radial arteries, they wind along like worms and pulsate visibly from the elbows to the wrists. I have seldom seen arteries so tortuous. The posterior tibial I find shows the same condition. This tortuosity and visible pulsation of the arteries has never occurred in my experience except where the aortic orifice was patulous.

This is another curious fact in connection with this case—these rounded, hard, tumors on the back of his elbows and over his phalangeo-metacarpal points. I opened one of these tumors from which a very thick, creamy matter escaped which yielded crystals of tyrosin under the microscope. I do not know whether these tumors are on the bursæ or not. I have examined this patient's heart very carefully, but I cannot detect any murmur of aortic regurgitation—no soft diastolic sound. Just left of the sternum I catch a soft sound, but that is not aortic. Walsh, of London, says that the condition of the arteries present here is found not only in patulous aortic orifice, but also in coarctation of the aorta. I think that further examination of this man's urine will reveal the presence of tube casts, and that when the more violent symptoms have somewhat subsided a regurgitant cardiac murmur will be heard.

The kidneys are the great sewers of the body. The bowels may be shut up for days and even for weeks at a time and no great harm is done, but shut up the kidneys for twenty-four hours and you have the most violent symptoms of uræmic poisoning.

I have already sketched out for you my treatment in this case. I may say in addition that Dr. George Johnson recommends very highly the following prescription in chronic Bright's disease, particularly in the comatose condition consequent upon uræmic poisoning.

R.

Scammonii resina,	gr. v
Potassii bitart.,	gr. xx
Zingiberis,	gr. viij

S. To be administered when needed.

## HOSPITAL RECORDS.

### HARTFORD HOSPITAL, HARTFORD, CONN.

Reported by GEO. T. FINCH, M.D., House Physician.

#### STRANGULATED INGUINAL HERNIA IN A CHILD ONE YEAR OLD. OPERATION AND RECOVERY.—SERVICE OF DR. GEO. C. JARVIS.

*Family History.*—Father and Mother healthy Irish people. Has Brothers and sisters who are strong and well.

*Past History.*—Pale and delicate since birth. Had an attack of pneumonia when six months old, a swelling discovered in each groin at the age of three months. The mother consulted a physician who said the tumors were ruptures, a truss was applied to each and the one on the right side disappeared in about a month. The truss on the left side did not prove effective, the bowel came down continually despite the efforts to retain it in place. As a rule the bowel was easily returned. The mother recalls three occasions when it remained down for more than a day. Hot baths, warm injections, laxatives and manipulation usually accomplished the reduction. Aug. 3.—The bowel came down and resisted the usual measures employed to replace it. The child vomited severely during the day and following night, after rather hard usage the mass was returned to the abdominal cavity and the vomiting ceased. Aug. 8.—About 2 o'clock, P. M., the mother noticed the bowel down, gave a hot bath, injections of warm water and soap, and a teaspoonful of castor oil by mouth. The bowel resisted all efforts at reduction. The child vomited at intervals. Rather severe and prolonged efforts at taxis were employed by the women of the family during the night.

Aug. 9.—The child was presented at the out-door Dep't connected with the Hospital and the history given above was obtained. Child was etherized and taxis tried faithfully. The child was held up by the heels, and every available means employed to reduce the hernia. A hypodermic needle was introduced and a drachm of sanguinolent fluid removed. No impression was made on the tumor. The child was sent to the Hospital.

On admission. Aug. 9 4.30 P. M.,—Child pinched and haggard, very restless, vomits every few moments a greenish bilious offensive vomit. The lips were raised and an ice bag applied to the tumor which was hot, red and tender. At 5.30 P. M. Dr. Jarvis, the visiting physician, arrived and immediately proceeded to operate, as the symp-

toms were manifestly so urgent. It was thought that the child would die. Operation.—The tumor was carefully cut down upon, layer by layer until the sack was reached. This was found firmly adherent. Sac opened and the gut found to be in good condition. Small amount of fluid. Finger passed into the ring discovered the constricting band at the upper part. The band was cut and the bowel slipped easily into the abdominal cavity. The wound was washed out with a twenty per cent solution of carbolic acid and sewed up. The sutures were passed in very deeply in the hope that a radical cure might be effected by obliteration of sac and closure of ring. An opening was left below for drainage and a carbolized cloth applied, to be changed every two hours. Ordered Pulv. Opii. gr.  $\frac{1}{8}$ . Cinchonid. Sulph. gr. i. every three hours in Sac. Lactis.

Aug. 10.—Passed a good night. Left testicle very much enlarged, Scrotum red, œdematous and hot. No inflammation around wound. Scrotum raised and carbolized poultices applied. Water dressing continued.

Aug. 11.—Stitches partially removed. Good union had been obtained. Some gas passed per rectum.

Aug. 12.—Remaining stitches removed. Considerable dark looking pus came from openings left by sutures. Poultices applied. Testicle much reduced in size. Scrotum natural. Bowels moved for first time since operation. Moved three times during the day.

Aug. 13.—By gentle pressure considerable pus removed from wound. The edges are gaping this morning. Poultices continued.

Aug. 14.—Not so well, feverish and restless. Bowels distended. Enema given and bowels move freely, with relief of bad symptoms.

Aug. 15.—Amount of discharge diminished. Bowels moved freely this morning.

Aug. 16.—The edges of the wound were brought together with adhesive straps.

From this time the cut closed very rapidly. The child was taken from the hospital August 22d, 1878, having perfectly recovered. The wound was entirely closed.

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## PERISCOPE.

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### CONVULSIONS CAUSED BY THE PRESENCE OF A HAIR IN THE PHARYNX AND ŒSOPHAGUS. (*Gazette des Hôpitaux*, 35, 1878.)

A child about one year old, suffered for several weeks repeatedly, from more or less severe attacks of convulsions. Although all the known anti-spasmodic remedies had been employed, the attacks could not be controlled. Accidentally one morning, the mother detected the end of a hair, sticking out between the incisor teeth of the child. She drew the hair out carefully, and it was found to be 90 cmt. (36 inches) long, hanging down through the Pharynx and Œsophagus. After the removal of the hair, the convulsions ceased, and the child's health was restored.—PAUL H. KRETZSCHMAR.



**ANAESTHETICS FOR CHILDREN.** (*15th Annual Report of the Hospital for Children in Berne (Switzerland)*, BY PROF. DEMME. *Central Zeitung für Kinderheilkunde*, Sept, 1st. 1878.)

With a large experience in the use of chloroform as an anæsthetic, Prof. Demme arrives at the conclusion to prefer it over all others as an anæsthetic for children. He says, its action is quicker, more reliable, and in no way more dangerous than that of the others. In 52 cases he produced anæsthesia with ether and among those cases, there were eight in which dangerous symptoms occurred, which made it necessary to employ energetic means to revive the little patients. D. complains, especially of the long duration of the stage of excitement, and of the severe emesis which frequently took place during, or after the administration of ether. He also mentions many instances, in which Bronchitis, and a few in which disturbances of the bowels followed the use of ether. Bichloride of methylene had been employed in twenty-eight cases; the children took it better than either chloroform or ether, none of the unpleasant complications of ether narcosis were observed, but profound anæsthesia, such as is frequently required, could not be produced by it. The chloride of æthyliden—highly recommended as a safe anæsthetic by Dr. Liebreich—was used in twenty cases; while under its influence, a child of eighteen months, had a sudden and severe attack of asphyxia, which made it necessary to resort to the use of artificial respiration.—PAUL H. KRETZSCHMAR.

**THE THERAPEUTIC VALUE OF SALICYLIC ACID AND SALICYLATE OF SODA,** BY PROF. CARL BARTELS, KIEL. (*Deutsche Medizin, Wochenschrift*, No. 32, 33, 34 and 35.)

The author, to whom the profession is deeply indebted for numerous and very carefully made clinical observations, for a number of valuable contributions to different periodicals and especially for the excellent article on "Structural Diseases of the Kidneys and General Symptoms of Renal Affections" in Vol. XV. in Ziemssen's "Cyclopaedia of the Practice of Medicine" died in his 56th year, in Kiel, June 22d, 1878; this paper is probably the last one he wrote, and after an extensive treatise on the subject, the author arrived at the following conclusions:

1. The therapeutic values of salicylic acid and salicylate of soda are identical. The soda preparation, however, should be used in preference in all cases, not only because it is much more soluble, but especially because its use excludes the possibility of any local irritation, which occasionally has been caused by the use of the acid.

2. The preparations of salicylic acid possess well-marked anti-pyretic properties. In every one of those cases which we observed, the temperature of the body (previously elevated by fever) has been reduced by their influence.

3. The anti-pyretic properties of salicylic acid and its soda-salt are not as strong as those of quinine if used in equal doses; and even if the salicylic preparations are given in doses four times as large as those of quinine, their anti-pyretic effect is of shorter duration.

4. In the treatment of fevers the preparations of S. acid should only be relied on, if the disease is naturally of a short duration, *i. e.*, Pneumonia, crouposa, and tonsillitis. Our experiments to control continuous high fevers with salicylic acid only, failed on account of the unpleasant symptoms which were brought about by its use. Especially in cases of typhoid fever I was unable to prevent delirium and more or less stupor, even if the preparation of S. acid were administered only in one or two larger doses during the evening, and if the cold bath was employed as usually to keep down the temperature. None of the patients suffering from typhoid fever, who were treated with S. acid, or its salt, could compare favorably with those who were treated in the manner which I have generally adopted—cold baths, with large doses of quinine (30 grs.) repeated every other evening. The preparations of S. acid should not be used even as a substitute for quinine in cases of typhoid fever. The anti-pyretic action of salicylate of soda, however, is of great value in the treatment of the hectic fever of consumptives. In such cases I obtained the desired effect with such small doses that none of the unpleasant symptoms which follow the use of salicylic acid or its soda-salt could be observed. The results were decidedly favorable, and more so in cases of well-marked remittent character, and if a single large dose be given at the beginning stage of the elevation of temperature.

5. An almost specific and an exceedingly quick action of the preparations of S. acid could be observed in cases of acute articular rheumatism. In all such cases not only the fever disappeared after from 8 to 18 doses of S. acid, repeated every hour, but also did the pain and the swelling. In some cases a recurrence of the attack took place, yielding, however, easily to a repetition of the treatment.

6. Even in almost all of the old chronic cases of articular rheumatism and rheumatic gout which came under my care, the excellent effect of the salicylic preparations could be observed. Pain and swelling decreased in a very short time, and I make the statement, that in regard to certainty and quickness of action the preparations mentioned are more reliable than any of the other remedial agents which are employed for the relief of the difficulty. In the few cases of arthritis vera in which I had a chance to try S. acid, I obtained an equally favorable and quick effect.

7. A somewhat specific action of the S. acid preparations has also been observed in cases of diabetes mellitis. Further observations have to decide whether and under which condition they can cure the disease permanently.

8. The value of the preparations of S. acid in cases of malarial poisoning, amounts to almost nothing.

9. In septicæmia their effect on the temperature is not very marked and only temporary.

10. A specific action of the preparations mentioned, such as Prof. Kolbe, of Leipzig, has claimed for them, as prophylactic or as potent remedies against infectious diseases generally, could not be detected. One patient who had taken large doses of S. acid for several weeks, was taken down with erysipelas, and the duration or symptoms of



typhoid fever, diphtheria, erysipelas, parotitis epidemica were in no way influenced by the salicyl preparations; their influence on other infectious diseases has not been observed.—PAUL H. KRETZSCHMAR

### ABOUT BOOKS.

*The Globe Encyclopedia of Universal Information, Edited by John M. Ross, LL.D. Boston, Estes & Lauriat, 1876.*

Among the many encyclopædias that are at present competing for the favorable opinion of the public, in our estimation there is none of them that can at all compare with the *Globe*. One of the chief features that commend the work is the fact of its being an entirely new one, being brought down in every department to the present day, the latest researches and the most trustworthy information, from all reliable resources, having been taken advantage of, and embodied in its pages. Chambers', Zöll's, Appleton's and others are all new editions of old works and are necessarily hampered by old matter and style, and it takes very little thought to perceive how much better an entirely new article on any given subject must be, than one that is patched up and made over to suit the changes that have been made in every department of human knowledge in the last few years. In this fact alone its superiority is evident, especially since the articles have been written and revised by the most eminent specialists in the world in their respective departments.

In medicine particularly, we notice that all the articles have been carefully and ably written, and if the other departments are as excellent, it is indeed the best encyclopædia that has thus far appeared. The articles are clear and concise and are thoroughly reliable in every case. We notice that it contains a great many that are omitted from Webster's, Chambers' and Appleton's, and we have found in a number of cases information on medical topics that we looked for in vain even in Dunglison. In the first volume alone there are no less than eighteen hundred articles included, that are omitted from Appleton's, and of these there are not less than seventy important medical terms. So important are they, indeed, that we cannot refrain from mentioning a few. We were not aware, before we came to examine so thoroughly, that Appleton's was so deficient. Among the number are Addison's Disease, Adenitis, Ague, Alopecia, Amnesia, Amenorrhœa, Anasarca, Anthrax, Aphasia, Aphæ, Arthritis, Astigmatism, Asthma, Athetosis, Aural, Blepharitis, Bowel, Bright's Disease, and many others. We might show the same incompleteness in Chamber's, but it is scarcely necessary, as any one who will glance at the work will need no argument to convince him of its superiority to the last-mentioned book.

Another very valuable feature of the work is the number of references given with each article to special treatises on the subject, where the reader may continue his researches if necessary.

Taking everything into consideration we can add our testimony to that of others, recommending the work most heartily and honestly to all those desirous of adding an encyclopædia to their library. We believe it has been fully indorsed by such men as President Noah



Porter, of Yale, President Robinson, of Brown University, and Prof Hill, of Harvard. No further comment is necessary.

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*A Manual of Operative Surgery; by Lewis A. Stimson, B.A. M.D., pp. 477, Philadelphia, Henry C. Lea, 1878.*

The above-titled work, a recent addition to our surgical literature, is quite a handy volume, and one that will undoubtedly prove useful to the busy practitioner. In a labor of this kind, the author can of course lay no claim to originality, which, in our day, is what we most need from any one who publishes a new book, while our shelves are already groaning under the weight of the vast masses of medical and surgical literature so eternally issuing from the press. Nevertheless this manual is welcome, as, to use the hackneyed expression, "it fills a want, etc." We have no recent work of the kind that places within a small compass the directions for performing the various surgical operations that one may, at any time, be called upon to perform. Most of the works on operative surgery are too large and expensive to be within the reach of every one, or have gone out of date, but this one is tolerably complete, inexpensive, an *au courant* with the most recent improvements of the day.

The author is clear and concise, and has not overburdened the text with unnecessary details. His descriptions are good, and selections judicious. Where there are numerous operations for the same object, he has only given the most important, and where several are spoken of he has endeavored to point out the best, giving us the reasons therefor. In the main he has been successful in aiding the reader to make the best choice of operation, though in some cases we might demur from his conclusions.

The illustrations are numerous and excellent, being in every instance well chosen and finely executed, though there are a few cases in which the text would have been better elucidated by the insertion of one or two additional engravings.

A brief glance at the table of contents will serve to show the scope of the work. Part I. The accessories of an operation. Part II. Ligation of arteries. Part III. Amputations. Part IV. Excision of joints and bones. Part V. Neurotomy and tenotomy. Part VI. Plastic operations on the face. Part VII. Special operations. Chapter I. Operations upon the eye and its appendages. Chapter II. Operations upon the ear and its appendages. Chapter III. Operations upon the mouth and pharynx. Chapter IV. Operations performed upon the neck. Chapter V. Operations on the thorax. Chapter VI. Operations on the abdominal wall, stomach, and intestines. Chapter VII. Operations on the genito-urinary organs of the male. Chapter VIII. Operations on the genito-urinary organs of the female. Chapter IX. Miscellaneous operations.

As we have said, the work on the whole is a good and useful one, but we might mention several omissions that should not have been made. For instance, such a frequent operation, as cutting down upon the vermiform appendix has come to be, does not receive any notice

whatever, while very much rarer and less important procedures take up too much room.

We wish the manual all the success it deserves, for it will doubtless prove of much utility to all who own it.

## NEWS ITEMS AND NOTES.

**Infants and Idiots.**—M. Voisin has made an interesting addition to our knowledge of cerebral anatomy and physiology by the microscopic examination of the brains of some microcephalic idiots and others, characterised by arrest of cerebral and cranial development without meningo-cerebral inflammations. The well-known studies of Major, Bevan, Lewis, and others, have shown how unformed and rudimentary are the cells of the cortex in infants. Sections of the corpus callosum and of the frontal convolutions show only nuclei, or myelocytes a little larger, but as abundant and of the same form, as those of the fetus or young child. The number of characteristic brain cells is very limited, and, even of these, very few show a complete development; the prolongations being quite elementary; the cells small and ill formed; the axis-cylinder meagre. Without being told, it would not be possible to distinguish the brain-cells of the infant from those of the cretin and the idiot.—*British Med. Jour.*

**Dr. Carl Warburg.**—In a letter to the *Times*, Surgeon-General W. C. Maclean, M.D., states that, according to the Sanitary Commissioner of Madras, malarial fevers in India destroy, on an average, twice as many people as small-pox, cholera, and all other epidemic causes put together; and that, in their treatment, he has found no remedy so effective as the combination of quinine that exists in Warburg's tincture. There is, in Dr. Maclean's opinion, an overwhelming amount of evidence to this effect. He states, however, that Dr. Warburg, who gave the formula for his tincture to Dr. Maclean, and consented to its publication, is now in deplorable circumstances. These persons "who advised him to publish his secret hoped that government would so far reward him as to purchase their supplies from him, and thus enable him 'to keep the wolf from his door.' This has not been done, and, far from having derived any benefit from the publication of his formula, he has been ruined by it. It is sad to think that a man who has added to our means of contending with disease should be not only in distressed circumstances, but in need of the commonest necessities of life."

**A Tooth Embedded in the Tongue.**—Dr. Bronstein adds the following to the curiosities of military surgery in a Russian medical journal. On July 18th, 1877, a soldier at Plevna was shot through the right angle of the lower jaw, the bullet passing through the mouth and knocking out five teeth. In April last—some time after the healing of the wound—he complained of pain in the tongue; and, on examination, a hard substance was found deeply embedded near the point, toward the right side. It was removed by incision, and proved to be the upper incisor tooth, which had been broken from its root.

**Deleterious Bacon and Buggies.**—From foreign advices it would seem that American dealers are sowing trouble abroad. Prof. Henschel, of Vienna, warns the pork eaters that the American product is rich in trichinæ, one in five to ten being found to contain the parasite. He fears that several epidemics of trichinosis have been due to pork from this country. Now comes another charge, which leads us to suspect somewhat the motives of the Germans in exciting suspicion against American industry. It is that the children's carriages, imported from this country, are a fruitful cause of lead poisoning and many obscure symptoms among children, from the absorption of the pigment used in their manufacture.—*Mich. Med. News.*

**Religion and Quackery.**—*The Independent* has recently set an example eminently worth following by the religious press generally. Under the head "*Sanitary*," appears weekly an article, selected or otherwise, on some subject connected with the preservation of health. Meanwhile quackery in the form of an advertisement has well nigh disappeared from its columns. Godliness and filth are wholly incompatible with one another, and the filth of some of the so-called religious press, under the form of advertisements, shows such papers to be unworthy of the names they bear; they are simply promoters of corruption and vice under the guise of religion, and should fall under the bans for the suppression for obscene literature.—*Maryland Med. Jour.*

**A Deceptive Patient.**—A story in the *Revue Médicale de l'Est*, of a patient who lost his life by deceiving his doctor. The man was suffering from lead-poisoning. The physician, oddly named Prof. Forget, prescribed strychnia pills, which produced no effect. The dose was increased to two, three, five, and six pills, without any result. Finally the doctor ordered the patient to take five pills in his presence. The man did so, and died within two hours. After his death, all the pills previously prescribed were found secreted behind his bed.

**A Milk Test.**—A German paper gives a test for watered milk, which is simplicity itself. A well-polished knitting needle is dipped into a deep vessel of milk, and immediately withdrawn in an upright position. If the sample is pure, some of the fluid will hang to the needle, but if water has been added to the milk, even in small proportions, the fluid will not adhere to the needle.

**The Cadaver-Poison of Australian Natives.**—According to Taplin, the inhabitants of the lower Murray district of Australia, who are comprised under the name of Narrinyeris, make use of a most destructive poison for killing their enemies, viz., the specific animal poison developed in human cadavers. The instrument used for inoculating an enemy with it is called *niejeri*. The natives state that the knowledge of this poison has been communicated to them by the inhabitants along the upper Murray; and it has at present become a most destructive weapon in the hands of the natives, who adopted it with



so much the more eagerness as their former belief in charms is gradually dying out among the present generation. The practice of the *nieljeri* is very much facilitated by the fact that the natives do not bury their dead, but preserve them above the ground. Into such a corpse the point of a spear, consisting of a sharp-pointed piece of human bone, six to eight inches long, is inserted. Then a bunch of hairs or feathers is saturated with the fat of the decomposing body and tied about the pointed bone. This apparatus is the *nieljeri*. With it the murderer stealthily approaches his victim, slightly scratches the skin with the sharp poisoned point, and, if undetected—as it often happens in consequence of the narcotic sleep of the natives after one of their gigantic meals—he steals away unsuspected. Soon the terrible effects of the cadaveric poisoning make their appearance, and the person generally dies under the most excruciating pains.—*Richmond and Louisville Med. Jour.*

**Phimosis as a Cause of Hernia.**—In the examination of fifty-one children affected with congenital phimosis, Kempe discovered that thirty-one had hernia: five double inguinal; a few umbilical. None suffered at birth, and the tighter the preputial stenosis, the earlier the hernia. All were relieved by circumcision; in five, the latter operation relieved the hernia.

**The Treatment of Diarrhœa by Oxide of Zinc.**—Dr. Jacquier has followed, in the service of Dr. Bonamy, at Nantes, the good effects of the employment of oxide of zinc in diarrhœa. The formula which he has employed is the following: Oxide of zinc, 54 grains; bicarbonate of soda, 7½ grains; in four packets, one to be taken every six hours. In all the cases which he observed, oxide of zinc produced rapid cure of diarrhœa. In fourteen cases observed by Puygantier, the cure was even more rapid, since in only one case were three doses of the medicine required. The results are considered to have been more satisfactory, inasmuch, as in several cases the malady had endured from one to many months, and other methods of treatment had not produced any improvement. Thus he concludes that, although by no means to be held an exclusive treatment, the employment of oxide of zinc deserves to be more generally known as useful in diarrhœa.

**The Postural Treatment of Tympanites.**—Dr. E. W. Jinks (*American Journal of Obstetrics*, July, 1878, recommends inversion carried out in the manner described in the following extract:—"The patient seemed so near moribund from exhaustion that she was entirely indifferent as to what was being done for her. With the aid of my colleague, Professor Andrews, and one of my assistants, I took the patient from her bed and gradually inverted her. There was no effect manifest from partial inversion; but, when we got her in the position of complete inversion, really standing her upon her head, there was to our gratification and the manifest relief of the suffering woman, a rush from the anus of the pent-up intestinal gas, coming out with a force more remarkable than anything of the kind I ever before wit-

nessed. The patient as she began to experience relief, instead of being passive in our hands, complained in no mild terms of the unkind and ungentlemanly treatment she was receiving. From this time there was no further trouble. If the gas seemed to be accumulating, or were not really expelled, raising her hips, gently kneading, or turning her from side to side, would cause it to be expelled. The patient encountered no more difficulties, and made an excellent recovery."

**Suicide of a Surgeon.**—Parini of Pisa, a young surgeon of high reputation in Italy, while attending the annual Congress of the Italian Medical Association at Pisa, shot himself with a revolver on the 24th, inst. The deceased man's father, it is stated, also committed suicide in an equally unaccountable way.

**Origin of Syphilis.**—Dr. Joseph Jones (*New Orleans Medical and Surgical Journal*, June 1878.) concludes, from his very numerous and extended examinations of the mounds of the mound-builders in the valleys of the Cumberland and Mississippi rivers, that syphilis existed among the aboriginal inhabitants of America long before Europeans set foot on American soil, and thus favors the theory that this disease was carried to Europe by Columbus on his first return voyage.—*The British Med. Jour.*

**A Stupid Joke.**—Last week, a man named Cuff was admitted into the North Infirmary, Cork, in consequence of injuries received from an explosion of gun-powder, which substance had been substituted for tobacco in a pipe given him to smoke. It is stated that the man's face will be permanently disfigured.

**New Books.**—Mr. Henry C. Lea has the following important works in preparation for early publication:

**THE NATIONAL DISPENSATORY.**—Containing the Natural History, Chemistry, Pharmacy, Actions and Uses of Medicines, and including the Preparations of the Pharmacopœias of the United States and Great Britain. By Alfred Stille, M.D., J.L.D., Prof. of Theory and Practice of Med., and of Clinical Med. in the Univ. of Pennsylvania, etc., and John M. Maisch, Ph. D., Prof. of Mat. Med. and Bot. in the Phil. Col. of Pharmacy, Secretary of the Am. Pharm. Association. With 205 illustrations. In one handsome octavo volume of over 1400 pages.

**CLINICAL MANUAL FOR THE STUDY OF MEDICAL CASES.**—For the use of Students and Practitioners of Medicine. By James Finlayson, M.D., Phys. and Lect. on Clin. Med. in the Glasgow Western Infir., etc. In one handsome 12mo. vol. of about 500 pp., with 85 illustrations.

**THE PRINCIPLES AND PRACTICE OF SURGERY.**—By John Ashhurst, Jr., M.D., Prof. of Clin. Surg., Univ. of Pa.; Surgeon to the Episc. Hosp., Phila. Second and Revised Edition. In one large and handsome 8vo. vol. of about 1000 pages, with about 550 illustrations.

**THE PRINCIPLES AND PRACTICE OF GYNECOLOGY.**—For the use of Students and Practitioners of Medicine. By Thomas Addis Emmet, M.D., Surgeon to the Woman's Hospital, New York, etc. In one handsome octavo volume of over 800 pages, with numerous illustrations.

**THE PRACTICE OF SURGERY.**—By Thomas Bryant, F. R. C. S., Surgeon to Guy's Hospital. Second American, from the Second and revised English Edition. In one large and very handsome imperial octavo volume of over 1000 pages, with about Six Hundred Engravings on wood.

**A SYSTEM OF HUMAN ANATOMY.**—Including its Medical and Surgical Relations. For the use of Practitioners and Students of Medicine. By Harrison Allen, M.D., Prof. of Physiology in the Univ. of Pa. With an Introductory Chapter on Histology, by E. O. Shakespeare, M.D., Ophthalmologist to the Phila. Hospital. In one large and handsome quarto volume, with several hundred original illustrations on lithographic plates, and numerous wood-cuts in the text.

**MANUAL OF PATHOLOGICAL HISTOLOGY.**—By V. Cornil, Prof. in the Faculty of Medicine, Paris, and E. Ranvier, Prof. in the College of France. Translated, with Notes and Additions, by E. O. Shakespeare, M.D., Pathologist and Ophthalmic Surgeon to Phila. Hospital, Lecturer on Necropsion and Operative Ophthalmic Surgery in the Univ. of Pa. In one very handsome octavo volume of about 600 pages, with over 300 illustrations.



# THE HOSPITAL GAZETTE

AND

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## LECTURES.

### LECTURES ON INSANITY.

Delivered at the College of Physicians and Surgeons, New York,

BY

E. C. SEGUIN, M.D.,

Clinical Professor of Diseases of the Mind and Nervous System.

[Reported for THE HOSPITAL GAZETTE.]

### LECTURE VII.

#### ETIOLOGY OF INSANITY.

GENTLEMEN:—The subject of to-day's lecture will be the *ætiology* of insanity. Although I hold peculiar views on this subject, I shall consider it in the usual way and divide the causes into *predisposing* and *exciting*; and I shall moreover admit, under protest, the further subdivision of exciting causes into *physical* and *moral* causes.

The development of our knowledge of the causes of insanity is quite recent. It was the old idea of the Greeks that Gods made one crazy as a punishment. In the mediæval ages the monks believed that the devil possessed a crazy person, and it is only in the last two hundred years that the causes of insanity have come to be recognized as being natural and complex; and to-day we believe that they are exceedingly complex. At the present time physicians do not admit any fixed set of causes, but endeavor to work out the *ætiology* of each individual case, and they can always find a complicated chain of circumstances leading up to the morbid condition. It would seem from this as if we had not made much progress. It might appear more satisfactory to have a single cause for each kind of mental aberration, but in abandoning such an idea we certainly reason more correctly. The idea of final causes in other things is gradually losing ground, though it must be said that the notion is not dead yet. Many men, holding positions in important universities, still teach that there is a final cause in creation, etc., but the scientists of the present age do not admit any such principle. They hold that certain laws of nature lead to certain results, and so it is in regard to insanity.

A thorough study of the laws of biology, and of the laws of the

human system particularly, show that in many cases insanity is brought about by some impairment or change in the nutrition of the brain.

Age, sex, occupation, education, and social status, all have more or less of an influence in the production of insanity.

As regards *age*, there is not much to be said. Insanity is pre-eminently a disease of adult life. The acute forms usually appear between the ages of twenty and fifty. Below twenty the disease is rare, and in an individual under twelve it is almost unknown. Above fifty we usually see only dementia.

The two *sexes* are equally liable to all forms of insanity except one, and that is general paralysis. This disease affects the male sex pre-eminently, as more than two-thirds of its victims are males. There is also the exception of puerperal insanity, which, of course, can only affect females. This is not, however, a truly distinct form of insanity, as it is simply a condition of mania, melancholia, or dementia, and is only called puerperal insanity from the fact that it is produced during the puerperal state.

The influence of *occupation*, if there be any, is not well shown by statistics; farmers, doctors, lawyers, merchants, etc., are all shown to be affected.

The *social condition* is more important. It belongs both to the upper and lower classes: but perhaps more especially to the lower. There is some connection with civilization, but exactly what it is, can hardly be resolved. Most observers think that our present civilization involves more active competition, and a sharper struggle for existence, thus occasioning more wear upon the nervous system.

Dr. Tuke has recently discussed the question and has found that there has been a positive increase of insanity in England during the last fifty years, and he concludes that this slight increase is due to the greater conflict of our modern civilization. If you were to take the mere figures of statistics you would think the increase to be enormous, but this must not be done. There are many sources of error in examining statistics, especially in the case of insanity. Patients now receive better care than formerly, they live longer, and the number of of patients under treatment at a given time is greater than ever. They accumulate in institutions and the number of insane people outside of asylums is more perfectly known. The actual increase in population must likewise be considered in forming an estimate. But all these and other facts being duly weighed it is still probable that there is a slight increase in the proportionate number of insane people.

The *social status* has a decided influence on the production of insanity. This influence is not general, but must be considered in individual cases. One subjected to a great deal of excitement is more liable to be affected. A man who has to compete continually and severely in a special manner, unless he be of a remarkably good and strong stock, may become insane. Take a predisposed patient who is poor, and has none of the comforts of life, and that social state may become a cause of insanity or crime.

I would also insert *inheritance* under the list of general causes. In

any given case it is not sufficient to make out that some of the patient's relatives have been insane, but we should seek out a direct or indirect inheritance, and by the latter, I mean a morbidly neurotic temperament in some of the ancestors or collaterals. In many cases, again, we cannot place reliance upon what the patient tells us in regard to direct inheritance, because he is very apt to conceal the true facts.

The study of indirect inheritance is complicated in many ways. The mother or sister of the patient may have been or are hysterical, or some of his ancestors have suffered from epilepsy, or severe chorea, or neuralgia. Sometimes we can trace these nervous disorders to excesses committed by the parents. They may have suffered from alcoholism or have been opium eaters, or have committed sexual excesses. Nervous or mental disease may become apparent only in the second generation.

Another cause may be cerebral overwork, and this is one way in which we can explain the degeneration so often observed in families, especially noted ones. This may be particularly observed in this country. Many of our most celebrated families have died out and are dying out from want of children and overwork. It is shown in the absence of ability of the grandchildren of men who took part in the revolution. Many of these were men of transcendent genius, and they either had no progeny, or what they had suffer from various nervous diseases.

I pass on now to the study of the *exciting causes*. I have already mentioned my objection to their division into physical and moral, but this is perhaps useful for the purposes of study, though physiologically incorrect. You know that a blow on, or rubbing of the skin will produce redness, in other words, we mechanically produce an area of hyperæmia. Now, a "moral" action in the brain may cause a similar hyperæmia. If you look back into your own experience, you all may remember that simply a thought has produced redness of the face, even when you were alone. An emotion may undoubtedly cause hyperæmia of the brain. Various other parts of the body may likewise be influenced in this way by mental action. For example, amatory impressions produce hyperæmia and erection in the genitals. Moral causes act in a similar manner. The sudden communication of a piece of bad news has a physical effect on the recipient, producing, in some cases syncope, the subject is knocked down as effectually as if he had been struck on the head. Dr. Tuke, in his work on the "Influence of the Mind upon the Body," speaks of a lady who saw a child going through a gate and receive a blow upon its foot. She soon felt her own foot sensitive and on examination found an ecchymotic spot on the ankle, in the region where the child had been hurt. There are many such cases that incontrovertibly prove that a moral cause may produce a tangible physical effect. Impressions, whether from inside or outside, are conducted by the sensitive nervous tract. There can be no distinction between moral and physical causes in this respect. A distinct physical impression may be made on the brain through ideation, or through the



optic or auditory nerves, or, in fact, through any of the channels by which impressions are received.

The *physical* causes of insanity may be enumerated as follows

Injuries to head.

Syphilis.

Dyscrasiæ.

Alcohol.

Sexual excesses.

Peripheral irritation, etc.

I am not prepared to give you the statistics but it is considered that a good many cases of insanity arise from injuries to the head. It is estimated that in some asylums ten per cent. of the cases have originated in this way. There may have been either simple concussion, or actual fracture and depression, or some other injury. There is no relation between the apparent severity of the injury and the gravity of the cerebral disease. We see this disparity very strongly marked in the ætiology of abscesses and tumors of the brain from trauma.

Dr. Duret, of Paris, has very attentively and carefully examined the results of concussion of the brain and has arrived at surprising results. He found that there were produced a number of hæmorrhages in the medulla, the pons varolii, and other parts of the brain even after quite a slight blow. This is a discovery of great importance for it explains how a slight blow or fall may produce very serious results.

As regards syphilis and dyscrasiæ, I shall have little to say. I have separated these two causes though here I am in conflict with many of the books. The point I desire to make is, that it is not the syphilitic blood-poison that causes the insanity, but one of its particular lesions, gummy formation, arteritis, meningitis, etc. The dyscrasiæ may, however, produce insanity, for example, malaria, alcoholism, poisoning by belladonna or cannabis indica. It is not very clear in regard to gout. Alcohol produces other effects besides intoxicating ones, it produces changes in the connective tissues, chronic interstitial nephritis, cirrhosis, or similar conditions in the brain and spinal cord. Inflammation of the connective tissue causes condensation of the brain and the cells undergo atrophy. Precisely the same results occur in hepatic and renal disease of the same origin.

Sexual excesses operate in two ways. 1st, though there is a drain by the loss of semen, I do not believe that this factor is of much importance. But there is nervous exhaustion. The sexual act is accompanied by a semi-epileptic seizure. There is a degree of muscular spasm with a probable dilatation of the pupil and a rise in temperature. When this act is inordinately repeated a great strain is caused to the nervous system, leading to a variety of results such as debility, parietic legs, impairment of memory, etc. Excesses or masturbation may lead to insanity, and it is a well recognized cause in a few cases. The number of cases produced in this way is considered to be quite large by some and very small by others. This is not surprising if we consider the multiplicity of circumstances that

may be involved. The various numbers only represent the particular views held by the different superintendents.

Secondly, there is the element of remorse that follows sexual excesses, especially self-abuse. A man commits sexual excesses and then greatly regrets it and feels mortified. The idea of remorse is constantly present in his mind, and he may never forgive himself. Some patients fifty and sixty years old have a few nervous symptoms, and because they masturbated when young ascribe all their trouble to that cause, but in reality their disease is not the result of their transgressions.

By peripheral irritation I mean not only a nervous disturbance elsewhere than in the brain, but any irritation of any of the organs. Dr. Storer has written a small work on the influence of uterine diseases over mental troubles, and has shed considerable light on the subject. I have no doubt that, to-day, a large number of female patients in asylums need a specialist, and many could be thoroughly cured by the replacement of a uterine version or the curing of a uterine inflammation. Superintendents of asylums, as a rule, are incapable of attending properly to these maladies, and they have an aversion to calling in an outsider. Some have a great repugnance to attend to such cases for fear of being accused of assault. For very many reasons every asylum should have consulting physicians and surgeons. Dr. Storer cites case after case showing a cause of insanity to be uterine difficulty, and European statistical reports point the same way.

Neither would I ignore similar facts in men. A specialist might sometimes relieve an insane patient entirely. Other peripheral injuries and internal diseases may likewise cause reflex insanity.

Among the *moral* causes we have misery, depressing emotions, excitement, remorse, fear and grief, religious fervor, excess of joy, the spirit of speculation, etc.

There can be no question about the potency of misery. We have a gigantic number of insane in this city and likewise in Brooklyn, and nearly all of them belong to the class in which misery is predominant. It is a physical cause as well as a moral one, for many of this class often suffer from cold and starvation. They struggle to improve their condition but are utterly unable to do so, and see themselves and their families sink lower. These conditions bring about an excessive mental distress which results in melancholia, in mania, in crime, or in suicide.

I can only enumerate fear, grief, etc., as causes that produce insanity, and may cause it suddenly, but that is unusual. Religious excitement may give rise to mania or melancholia. Almost every revolution has produced more or less insanity, as well shown after the Franco-Prussian war and the Commune in Paris. As regards religious excitement, I do not wish to be misunderstood. The cause lies in most cases not in religion but in the individual; he is predisposed to insanity and the exaltation precipitates an outbreak.

Speculation is often a cause in a well-to-do patient. I saw a case lately of a patient who having just recovered from melancholia went into Wall street and won a quantity of money. He then again got off



the track and was very sanguine of success, was confident of making half a million, bought jewelry, watches, etc., and exhibited the exalted notions and the physical symptoms of general paralysis of the insane. Under the form speculation a complex aetiology is hidden; in speculation there are such conditions as mental tension, irregular meals, imperfect sleep, extremes of hope and fear, great disappointments, and often the abuse of alcoholic stimulants. No wonder that men develop various diseases under such circumstances.

Over-study is often spoken of as a cause, but the few cases I have seen that were ascribed to that origin were not really such. I have often been able to make out a history of masturbation. Very studious boys are given to solitude and are very sensitive. They often go together, when supposed to be studying, and abuse themselves. I do not deny that the case may be different with an adult. There is no question but that a man in a profession, struggling hard with strong competitors, is liable to become insane through over exertion. In a man of thirty or forty, in a profession, the insanity may be the result, not only of the over-study, but also of anxiety. Loss of sleep also comes into play as a physical cause. Such a man is busy all day and must, besides, work at night. He ruins his constitution physically, and breaks down mentally; if he stops he will fall behind, and this he will not run the risk of.

Finally, I would again urge you to remember that the causes of a given case of insanity are very complex. We must always try to make out the chain of causes, investigating inheritance, social status, etc., and then look after the exciting causes. Try to make out the concatenation of events until you reach the last act or circumstance that preceded the outbreak. I insist on this for two cogent reasons; first, it is more scientific, and, secondly, the prognosis largely depends on it. If you judge from one factor alone, the prognosis may seem favorable; whereas, if you find the social condition bad, an inherited tendency to mental disorder, you would be more careful.

## A CLINICAL LECTURE.

Delivered at the Pennsylvania Hospital, Philadelphia.

BY

THOMAS G. MORTON, M.D.

Visiting Surgeon to the Hospital.

(Reported For THE HOSPITAL GAZETTE.)

- I. INJURY TO THE EYE. II. REAMPUTATION OF THE FOOT. III. PHOSPHOR-NECROSIS OF THE LOWER JAW BONE. IV. COMPOUND COMMUNUTED UNUNITED FRACTURE OF THE LEG.

### I. INJURY TO THE EYE.

This man was struck in a street fight just under the right eye, with the barrel of a pistol. You see what an ugly surface wound was produced by the blow, but this palpable injury does not begin to represent the entire harm done. The end of the pistol barrel, after cutting its way through the tissues, finally got behind the ball of the eye and almost completely severed the optic nerve, bruising the eye itself considerably and causing a profound ecchymosis into the tissues of



the eye. Several of the muscles of the eye are palsied. The internal rectus, however, has not been much involved. When the man looks up there is some slight undue elevation of the eyeball. The functions of the motor oculi will probably be in time restored, but the optic nerve is altogether gone. The man will be stone blind all the rest of his life. In addition to the other injuries the wound has caused mydriasis and quite a considerable protrusion of the eyeball.

As far as treatment is concerned, there is nothing which will do any good. The sight is lost entirely. A large part of the ecchymosis will subside in time, but probably a small amount of passive congestion will remain.

## II. REAMPUTATION OF THE FOOT.

This man's foot was badly crushed in a railroad accident some years ago. A large part of the foot was amputated at the time, but the surgeon I suppose trusted to nature to provide the flaps which, as you see, she has not done. There has been a good deal of ulceration, there being three distinct points of sloughing. The ends of the bones too, which ought always to be covered with skin, project and form the most prominent parts of the ulcers.

In such a case as this the only thing to be done, of course, is to re-amputate. This being so we have a great number of operations to choose from, Pirogoff's, Syme's, etc., etc. The point which we must keep mainly in view is to save as much of the foot as possible. Every quarter inch of tissue in the foot is so much gained to the patient.

I think that I had better make a section of the tendo Achilles before beginning to operate, as I may thus be able to increase the amount of tissue below available for a flap. I shall endeavor to save all the tissues in front of the internal cuneiform bone. When I get my knife just behind the internal cuneiform I shall make a section with my saw and throw the tissues back. I carry my incision well round the foot as you see, taking away all the skin covering the inner portion of the foot. I may possibly have to cut away the scaphoid and cuboid bones.

You see that the division of the tendo Achilles has done a great deal to rectify the position of the foot, which was considerably everted at first.

I hope that these flaps will prove ample enough. I have had to stretch the skin strongly to make it cover the bone. If the flaps are not sufficient and do not grow together, all that we can do is to open the wound again and saw away some more bone.

The flaps are fastened together with sutures, and as a covering for the wound tarpie is used, soaked in one part of carbolic acid to sixteen parts of olive oil.

(The wound made a very good recovery, the flaps proving of ample size. I forgot to mention in its proper place, that instead of using ether the man was anæsthetized by means of nitrous oxide gas.—*Reporter.*)

## III. PHOSPHOR NECROSIS OF JAW BONE.

This diseased condition of the patient's jaw is the result of puddling phosphorus and dipping matches. The phosphorus is supposed to find its way into the jaw bone through the orifices in carious teeth. The contact of the phosphorus irritates the periosteum of the bone, which suppurates, causing degeneration of the bone substance. A large part of this man's lower jaw-bone is dead.

The first warning note of the present trouble occurred some three years ago when he was working in a phosphorus factory. He had a violent toothache which lasted an unusually long time and gave rise to an enormous amount of pain.

Last spring, after suffering from frequent agonizing attacks of toothache, he had the tooth extracted. Immediately following the removal of the tooth the cavity began to suppurate profusely. The man came under my care, and upon carrying a probe into the cavity left by the tooth I found that a large part of the lower jaw was denuded of its periosteum.

The man came into this Hospital near the end of last June. At that time I laid the left lower jaw boldly open and found just such a condition as I had expected. I removed all the carious bone and scraped away all the decayed periosteum. This operation gave the patient most marked relief, but scarcely had he left the Hospital considering himself entirely recovered, before the same old pains came on again.

Dr. Hunt has already had just such a case as this under his charge in this Hospital in which there were no fistulous tracks but a condition of wholesale necrosis of the bone. In that case Dr. Hunt removed the whole of one side of the lower jaw piecemeal.

The only successful treatment of this condition is by operation. The disease very often occurs in women. In one case in a woman, I remember hearing that the patient has died in a week from exhaustion consequent upon the profuse suppuration. In a case occurring at St. Joseph's Hospital in this city, Dr. Boker removed the whole lower maxillary bone, which he found entirely necrosed and carious from this same cause.

Before performing any such extensive operations on the mouth as this one, it is proper to catch the tongue with a tenaculum and hold it forward, or at least let an assistant do so for you. Otherwise it may slip back into the throat when its muscular attachments are loosened, and choke the patient while under the influence of ether.

On July first, as I said above, I laid open this man's lower jaw and excised all the carious bone, about one half of the entire length of the left half of the lower jaw.

I intend to lay bare the right half of the lower maxillary bone and complete the process of removal. Having drawn the skin well up over the chin, I begin my incision under the chin at a point just below the middle of the lower jaw and carry it well round towards the ramus on the right side, taking care to follow the course of the bone. In doing this and dissecting down to the bone I am obliged to divide

the facial artery. Now that the jaw is completely laid bare I shall try to get my finger round it and separate the muscles.

Having by careful examination determined what part of the bone is entirely necrosed, and therefore ready for removal, I make a division at the border of the sound part with a saw. The most convenient kind of saw in this case is the chain-saw. Though this cutting work is slow with such an instrument, it is the only instrument available here, where the space for work is so confined.

I find that the hemorrhage from the inferior dental artery is quite copious, and shall have to tie that artery at once somewhere outside of the bone. The bleeding being stopped I bring the sides of the wound together with sutures and apply the usual dressings.

#### IV. A CASE OF COMPOUND COMMUNUTED UNUNITED FRACTURE OF THE LEG.

Like many other cases such as this, the ends of bone have been very slow at uniting firmly. The swelling of the adjacent parts which immediately followed the reception of the injury, was so great that I had to make a long, deep, and free incision of the parts so as to relieve the great tension. Many pieces of bone were removed with the forceps through this incision.

Now that the man is thoroughly under the influence of the anæsthetic, (I am using nitrous oxide gas), I proceed with a dentist's drill, worked by hand, to make a number of holes in all directions through the bone at the point of fracture. This is generally acknowledged to be one of the best means in our power, in such cases, of stimulating the bony substances to unite.

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### ORIGINAL ARTICLES.

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#### LIGATION OF THE LINGUAL ARTERIES BETWEEN THE EXTERNAL CAROTID AND POSTERIOR BORDER OF THE HYO-GLOSSUS MUSCLE. EXTIRPATION OF THE TONGUE FOR EPITHELIOMA.

BY

JOSEPH W. HOWE, M.D.

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John Dean, aged 70, occupation harness-maker, was admitted to St. Francis Hospital Sept. 17, 1878, suffering from epithelioma of the tongue. The disease commenced eight months previous to admission, as a small fissure or ulcer on the left side of the tongue, near the tip. It spread rapidly in depth and in circumference, and was accompanied by pain and difficulty in mastication and deglutition. An examination showed that a large, deep, and irregularly excavated ulcer occupied the left side of the tongue, extending from its anterior extremity to within three-quarters of an inch of the insertion of the palato-glossus. The organ was swollen and very painful to the touch. Large quantities of saliva mixed with pus flowed constantly from the mouth. The odor was extremely fetid, and very noticeable some distance from the patient.



The mouth was thoroughly cleansed with a strong solution of carbolic acid, and a nutritious liquid diet ordered.

A few days after admission it was seen that the disease was spreading rapidly, and had already involved the right side of the tongue near the floor of the mouth, and undermined the greater portion of the left. There was every indication that the lingual and its branches would soon be involved in the destructive process, and that death would soon ensue from hemorrhage. To prevent this accident, it was decided to ligate the lingual arteries near their origin between the external carotid artery and the posterior border of the hyo-glossus muscle, in the manner proposed and successfully acted upon by Dr. George F. Shrady, of this city.

I performed the operation on Sept. 30, assisted by Drs. Shrady, Ripley and Stinson. An incision was first made on the left side of the neck parallel with the hyoid bone, extending from its anterior extremity to about an inch beyond the apex of the greater cornu. The artery was found just above and posterior to this point; a cat-gut ligature was applied, and cut off close to the artery. The wound was then closed in the usual manner. A similar incision was then made on the right side and carried down to the apex of the cornu. Here the artery was given off from the carotid about the eighth of an inch higher than on the opposite side, and more dissection was necessary to expose the artery. A cat-gut ligature was applied and the wound closed. As the condition of the patient was good it was decided to extend the operation and remove the tongue through the mouth. Accordingly the organ was firmly held by means of a *Vulsellum* forceps drawn out as far as possible, and its attachments in front and below cut with a blunt-pointed scissors. This allowed the tongue to be drawn still further out of the mouth, and its root to be more readily reached. A stout ligature was then passed through the base of the tongue near the median line and held by an assistant. The palatoglossi were then divided and the tongue cut through at its base and removed. A piece of diseased tissue attached to the gum at the symphysis and to the floor of the mouth was also removed at the same time.

The operation was a *bloodless* one up to the time the anterior pillars of the fauces were cut through, then slight hemorrhage occurred, which was readily controlled with a piece of ice.

On the second day after the operation the patient's temperature ran up to 103. On the 4th it went down to 101, and he was able to get out of bed and help himself to various articles in the room. His food, which was administered by means of a catheter inserted in the œsophagus, was retained, and he was comparatively free from pain. On Sunday, the sixth day after the operation, he remained up, and attended to all his wants. The wounds in the neck were healing rapidly and there was every prospect that he would make a good recovery. But on the morning of the seventh he aroused the attendant by a loud cry. The latter ran to his bedside, and found that a large stream of blood was spurting from the posterior corner of the

wound on the right side of the neck. He was unable to control it, and death resulted in three or four minutes from the hemorrhage.

A post mortem examination showed that the lingual artery on the right side had sloughed from its point of origin at the external carotid to a couple of lines beyond the point where the ligature was attached. On the left side the ligature was intact and a firm clot filled the lingual artery on both sides of the ligature, and extended about the eighth of an inch into the external carotid artery.

*Remarks.*—There was no disease in the neighborhood of the ligated artery which would account for the secondary hemorrhage. The artery was ligated at a sufficient distance from the carotid to ensure the formation of a clot. There was no calcification or atheromatous degeneration of the vessels on that side of the neck. In my opinion the secondary hemorrhage was due for the most part to the extra amount of dissection which was made in exposing the artery on that side, and which probably cut off the blood supply to the walls of the bloodvessel. In a younger person the destruction of cellular tissue around the artery, to the same amount, would have been unattended by such consequences, but in an old man, where nutrition was much below par, little was needed to cause necrosis of tissue anywhere.

As before remarked, the operation was a bloodless one. The tongue was cut away with as much ease, and with as little hemorrhage as if removed from a cadaver. There was no shock following the operation, and every point in connection with the case showed that the ligation of the arteries near their origin was a justifiable preparatory step towards extirpation of the diseased organ.

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## HOSPITAL RECORDS.

### PENNSYLVANIA HOSPITAL, PHILADELPHIA.

Report prepared for THE HOSPITAL GAZETTE.

#### CATARRHAL PNEUMONIA.

To lessen the fever, the two best remedies are quinia and digitalis. Salicylic and carbolic acid have been tried with the same object in view, but have failed. The quinia and digitalis are administered as long as the fever lasts, either separately or in combination. The usual dose is one grain of digitalis and two grains of quinia thrice daily. When cough is among the symptoms opium is given. To stop the distressing night-sweats atropia (see phthisis) is used.

To promote absorption and produce counter-irritation, blisters are applied to the chest, and the following prescription administered:

R.	Potassii iodidi,	3 j.
	Ammonii muriatis,	3 ij.
	Mist. glycyrrhizæ comp.	f 3 vi.

S. A teaspoonful four times a day.

#### PHTHISIS—NIGHT SWEATS.

The night sweats of phthisis are treated successfully in this hospital with granules of atropia— $\frac{1}{80}$  to  $\frac{1}{60}$  of a grain every night before retir-



ing. This atropia treatment was first started here, and has been very generally adopted elsewhere, as the best means of checking colligative sweats, both in phthisis and in other affections. After taking from  $\frac{1}{80}$  to  $\frac{1}{60}$  of a grain of atropia every night for four or five nights, the sweating is usually entirely checked. To counteract the dryness of the throat produced by the atropia, strong lemonade, gum water, or slippery elm are used conjointly with it. Quite recently the best results have been obtained by means of jaborandi combined with the atropia. The dose of jaborandi employed is very small. Entire toleration of the atropia has been produced in every case in which the jaborandi has been used with it. The atropia checks the great drain of the sweats upon the system, and so gives the other remedies a chance to act.

#### HEADACHE CONSEQUENT UPON CEREBRAL TUMORS.

If large doses of the bromide of potassium and of gelseminum have no effect, blisters are applied behind the patients' ears and at the nape of the neck. Occasionally he is purged. If everything else fails, local venesection is resorted to. This always affords relief. Two to five ounces of blood are taken from the patient, opening a vein near the mastoid process, or in the nape of the neck, whenever the headache is very bad. The local abstraction of blood has been found to afford more relief in these cases than can be obtained by the use of any internal remedy.

#### VERTIGO OF GASTRIC ORIGIN.

The best results are obtained by the use of alkalis and bitter tonics. Most cases are decidedly benefitted by the use of Vichy or Carlsbad waters, or by the bicarbonate of sodium after meals. The general tone of the system is invigorated by tonics before meals. Late in the course of the disease iron is given thrice daily in combination with one thirtieth of a grain of strychnia. Another plan of treatment consists of the administration of small doses of corrosive sublimate while paying strict attention to the bowels and diet.

#### THE BEST FORM OF IRON FOR HYPODERMIC MEDICATION.

Dialyzed iron was injected hypodermically, with most excellent results, in a case of chlorosis, where the stomach was not very retentive. At first the patient received daily under her skin fifteen minims of pure dialyzed iron, slightly diluted. Afterwards the dose was increased to twenty, twenty-five, and finally to as much as thirty minims of undiluted iron daily. There was no sign whatsoever of local inflammatory action. The improvement in the case was most marked.

The subsequent results from the use of dialyzed iron have not been as propitious. The local effects have not been by any means invariably satisfactory. There has been in each case more or less local irritation. This has been found to be altogether owing to the inequality of the preparation of different bottles of the drug—one is neutral and another irritating.

Quite recently some experiments have been made which seem to prove that the ammonio-citrate of iron is a more reliable preparation.



In a number of cases in the wards of the hospital from two and a half to five grains of the ammonio-citrate in fifteen minims of distilled water have been injected without any bad results whatsoever, though in one or two instances the injection was followed by nausea, which was no doubt due rather to imagination than to any deleterious effects of the drug.

## TYPHOID FEVER.

Eight grains of quinia and forty minims of muriatic acid are given daily. The body is sponged with cold water. In the second week ten minims of turpentine are exhibited every two or three hours, in mucilage, until the tongue grows moist. Where a relapse occurs the patient is immediately put upon the same treatment which was employed at first. The diarrhœa is limited by opiates and astringents, and the diet is carefully regulated.

## OPHTHALMIA NEONATORUM.

The child, if it has been weaned, is at once put again to the breast. Its eyes are touched twice a day with the solution of nitrate of silver (argenti nitratis, gr.  $\frac{3}{4}$ ; aquæ destillatæ, f  $\frac{3}{4}$  j). The following preparation is applied to the lids:

R.

Zinci sulphatis,	gr. j
Aquæ camphoræ,	f $\frac{3}{4}$ j
Sodæ boratis,	gr. xij
Aquæ destillatæ,	q. s. ad. f $\frac{3}{4}$ j

M.

S. To be applied to the lids once or twice a day with a camel's hair brush.

Mr. Dickson's, of London, suggestion, viz:—the injection between the eye-lids of a solution of gr. v—viij of alum to the f  $\frac{3}{4}$  j of water, has also been employed in several cases with most excellent results.

## ANTEFLEXION OF THE WOMB.

The treatment of this disease at this hospital is peculiar. No pessary and no mechanical instrument of any kind is employed. Dr. John Forsyth Meigs does not believe at all in the use of pessaries in anteflexion. For the patient's general health, f  $\frac{3}{4}$  ss of the compound gentian mixture is ordered to be taken thrice daily with gr. iv of the ammonio-citrate of iron. To clear out the bowels and keep them open the following mixture is prescribed:

R.

Magnesii sulphat,	3 vj
Acid, sulph. dil.,	3 ij
Ferri sulphat,	gr. xij
Quinix sulphat,	gr. xij
Syrupi zingiberis,	f $\frac{3}{4}$ j
Aquæ,	q. s. ad. f $\frac{3}{4}$ vj

M.

S. A tablespoonful in ice-water three times a day.

This not only acts as a gentle and constant aperient, but also invigorates the appetite and promotes the general health.

To remedy the condition of antelexion the woman's bladder is taught to hold each day a larger and larger quantity of urine—from f ̄ ij-iv-vj-viii-x, until finally it can retain fully f ̄ xij. By that time the antelexion is largely reduced. The fuller the bladder is, the more rigidly does the uterus regain its normal position.

#### ACUTE RHEUMATISM.

Immediately after admission gr. x of salicylic acid are given, and the dose repeated every hour until six doses have been taken. The amount of the dose is then reduced so that about 3 j of the acid is taken in the course of twenty-four hours. The results of this treatment are most striking; the skin becomes soft, and the perspiration gentle, and the pain is entirely removed. To check the pericarditis a blister is applied over the heart and the blistered surface subsequently poulticed. To prevent the occurrence of partial ankylosis of the joints, a series of small blisters are applied, the parts are then enveloped in warm-water dressings. To prevent relapse, gr. xij of quinia are given daily. The diet consists of milk, eggs, tea and toast, and occasionally oysters and meat.

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#### PERISCOPE.

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##### LATERAL CURVATURE OF THE SPINE.

In a Clinical Lecture (*Brit. Med. Jour.*, May 25th, 1878,) Mr. Christopher Heath, F.R.C.S., after calling attention to many of the apparent characteristics of scoliosis, and mentioning the fact that it is the dressmaker or dancing-master that first calls attention to the "growing out" of one shoulder, maintains, following Barwell — and others, that the rotary lateral curvature develops "in weakly girls who have outgrown their strength." The reason why the upper or dorsal curve is almost invariably to the right (in 83 cases occurring in the N. Y. Orthopaedic Dispensary service prior to 1876, 18 were males, 65 females; in 62, the dorsal curve was to the right, in 20 to the left, in one not stated), the author asserts is because the great majority of mankind are right-handed, and hence the right is stronger than the left side. He also cites, as a cause, the fact that in the female the respiration is much more thoracic than in the male. The lecturer then quotes Barwell and Sayre, and states that the unbalanced serratus magnus produces rotation of the vertebræ, "for the ribs act as long levers attached to their respective vertebræ, and hence one of the earliest changes in lateral curvature is a rotation of the vertebræ." Mr. Heath then exhibits to the class a case of symptomatic (though he calls it *actual*) curvature following shortening of the left leg—a sequence of hip-disease. He demonstrates to the class the "diminution of the lumbar curve" after bringing "the pelvis straight," and remarks that the "dorsal curve and rotation" cannot be rectified without assistance. (In our own experience, lateral curvature, even of many years standing, dependent upon a difference in the length of the lower

extremities solely, may be, as a rule, quite easily removed by artificially increasing the length of the shortened member, and thus straightening the pelvic plane.) The assistance employed on this occasion was the plaster-jacket, and the patient was directed to use self-suspension. Mr. Heath condemns all "machines," showing one or two specimens, only, however, to warn his listeners against employing them. He does not state what forms of special support he so unqualifiedly deprecates. He merely remarks "not only do these machines fail to do good, but they do positive harm by preventing the proper exercise of muscles" (if he had chosen the words, the eminent lecturer could not have more fitly condemned the plaster-jacket, which he approved and applied, in the presence of the class.)

The lecturer does not use Sayre's "tripod" in making his suspension. He has devised an apparatus which is "much cheaper and less formidable." It is a simple set of double pulleys with a screw that can be fastened into any convenient bedroom doorway or beam.

In a letter to the *Brit. Med. Jour.* for June 1st, 1878, Mr. F. R. Fisher, F.R.C.S., surgeon to the National Orthopædic Hospital, in commenting on Mr. Heath's lecture, says: "Dr. Sayre's theory is as follows: 'The scapula becomes a fixed point by the contraction of the rhomboidal muscles; the serratus magnus acting from this fixed point draws upon the ribs and converts them into a lever of the first class—the power being at the attachment of the serratus magnus—the fulcrum at the transverse processes, and the weight at the body of the vertebra. The serratus magnus, by its contraction acts on the long arm of the lever, and rotates the vertebra. The fallacy of this theory is evident. The scapula becomes a fixed point by the contraction of the rhomboidei; therefore the spinous processes, from which these muscles take origin must also be fixed points, that is to say, the vertebra is at one and the same time a rotating body and a fixed point, which is absurd.'"

S. David Foulis states (Glasgow Clinical and Pathological Society, *British Med. Jour.*, March 30th, 1878), that having had his attention directed to the subject of rotary lateral curvature, he had carefully examined all the spines in the *post mortem* room, and he had been surprised to find that of 45 adults, the spine was more or less twisted in 30 cases, while the remaining 15 were perfectly straight. The method Dr. F. employed was, in the first place, to clean the front of the spine from all loose tissue, and then the body being placed quite straight, a thin wooden rod was employed to gauge the straightness of the spinal column. In the slighter cases the twist was confined to the bodies of the vertebræ; in the more advanced cases the spinous processes were also displaced, always to the same side as the bodies. (The writer evidently means that the curvature was unaccompanied by rotation, the body and the spinous processes being always displaced to the "same side" of the median plane.) The deviation was not limited to any one part of the spine, nor to either side. There was always slight compensatory curves present. The facts, the author states, seem to confirm Mr. Adams theory that faulty position while at work was the starting point of many cases of spinal curvature. Dr. McEwen said



that on one occasion he examined the spines of 15 patients in one of his wards, and detected a trifling deviation of the spinous processes in 12 cases.

In looking over the files of this same journal, (we find February 23d, 1878) in an interesting correspondence on the early history of extension in hip disease, the following, written by Mr. A. F. McGill, F. R.C.S., of Leeds: "The apparent benefit which attended the use of the "hip splint" (Sayre's) at the first application, led me, as well as many others, to think it would prove a great acquisition, but unfortunately we found that its application, instead of being beneficial was decidedly the reverse. \* \* \* Shall we find the newly introduced treatment of diseases of the spine \* \* \* equally unsatisfactory. Time only can show, but some of the cases in which I have lately used it make me fear so. \* \* \*"

NEWTON M. SHAFFER.

#### SUBCUTANEOUS EXTRA-ARTICULAR OSTEOTOMY FOR GENU VALGUM.

The operation to which this name has been given, was performed for the first time on Friday last, May 17th, at the East London Hospital for children, by Mr. Reeves, in the presence of several foreign surgeons. Its object, which was thoroughly obtained, was to improve on the method of operating on cases of knock knee, devised and executed by Dr. A. Ogston, of Aberdeen\*; and our object in calling attention to it at this early stage is to induce surgeons to give it that trial and preference which a less severe and equally efficient operation must claim. We give the substance of Mr. Reeves' observations before the operation. In Dr. Ogston's operation, the knee is entered by the tenotome or scalpel, a fine saw is introduced along the knife-track and the internal condyle is sawn off. This proceeding has now been done about thirty times antiseptically, and the results have been, on the whole, very encouraging; yet we have heard of a few cases in which synovitis, followed by severe constitutional disturbance and ending in ankylosis has occurred. It was to avoid if possible these unnecessary complications, that Mr. Reeves' thought of the extra articular method. A scalpel previously dipped in carbolized oil was introduced obliquely just above the inner tuberosity, and the soft parts and periosteum were divided; by the side of the knife, a chisel, also dipped in carbolized oil was introduced and the inner condyle separated *as far as the cartilage only*, and the chisel being then used as a lever, the condyle was prised inwards till it was felt to move moderately freely. The limb was then forcibly straightened by Mr. Caesar and Mr. Parker; a pad of lint dipped in carbolized oil was put over the small aperture, and a long splint interrupted at the knee and with a cross piece at the foot to keep it steady was adjusted to the straightened limb. As the condyle differs in shape and depth it is of course necessary to be accurate in chiselling, and to guide him, Mr. Reeves previously marked out with ink on the knee, not only the

\* Vide Hospital Gazette, Oct. 1st, 1877.

contour of the condyle, but also the direction of the chisel cut. The greatest depth of the condyle was marked on the chisel, allowance being made for the thickness of the cartilage and soft parts. The chisel was then driven home till the mark on it nearly reached the skin. The condyle having first been penetrated in its greatest depth, the chisel was partially withdrawn; its direction was altered, first forwards, then backwards, and with a few oblique touches, due allowance being made for the varying depths, the condyle was felt to be sufficiently loose, when the instrument was withdrawn and the knee was straightened. The joint was not entered, no synovia escaped, and the feeling of resistance to the chisel was not at any time overcome. Had this been the case the joint must have been opened. It might, *à priori*, be thought that the uncut cartilage, with perhaps some slight uncut bony bridges would either interfere with the reduction of the deformity or would only yield after being broken. The result so far in this case does not confirm these objections, if they be serious objections. Experiment and experience must determine the matter in the case of adults, but in children, in whom the condyles are not completely ossified, and what bone there is in the young cancellous tissue is soft and pliable, these objections do not hold. But, even if the cartilage were to fracture, or even if the joint were entered—say purposely—with the chisel, the proceeding would not be so severe as if done with a saw. Another modification in this operation is noteworthy. It has been said that the internal condyle was separated. It is more correct to say that the greater part of it was almost separated; that is to say, that the chisel-cut did not extend to the inter-condylar groove but only to its inner side. The aim of this is to secure some part of the inner condyle which might grow and thus obviate any possible *genu-extorsum* which may be the consequence of increased growth of the external condyle. All these operations which may be rapid as contradistinguished from the older methods of splinting and tenotomy, when necessary, are too young to admit of any dogmatic statements about them; but in the meantime we should adopt that method which is effectual and least risky. Delon's, Ogston's, Max Schede's, Annandale's and McEwen's and the one just described have all the same object with regard to this deformity; but the method of executing it differ. One by *brisement forcé* separates the upper tibial epiphysis; another removes a wedge from the upper part of the tibia; another attacks the femur, and yet another removes a wedge from the internal condyle. Ogston's method and this agree in principle, but differ in execution and severity. The advantages of the extra-articular method seem to be, greater rapidity of execution, rendering it more completely sub-cutaneous, much less damage to the bone, cartilage and soft parts; no interference with the knee-joint; and, as the condyle is not completely separated, there is less likelihood of non-union and necrosis. Again, the resulting joint surface will be more regular, and by leaving a part of the condyle, the probability of a *genu-extorsum* is much diminished. Then there should be no difficulty with the case. As soon as the condyle has become firmly at-



tached in its new position, the stiffness will only be due to having kept the knee fixed for some weeks—say five—and not to ankylosis which has to be overcome by frequent passive motion under anæsthetics. In the present case it was endeavored to make the section on the distal side of the line of junction of the epiphysal cartilage. This is considered important with reference to the future growth of the inner side of the femur. The operation was not anti-septic in the Listerian sense; it was carried out in the same way as nineteen other osteotomies (five femora, ten tibiæ, and four fibulæ) by the same operator; and as in these cases everything progressed as could be wished, no additional precaution was deemed necessary. Even this operation of minimum severity Mr. Reeves would confine to those cases of overgrowth of the internal condyle in which the older methods are not applicable or have failed; but as soon as experience shall have taught that there is nothing to counterbalance its many advantages, he would not hesitate to recommend and adopt it as the first means in the more severe cases of this deformity. Expensive and cumbrous apparatus become necessary after tenotomy, etc.; and they will not be needed in the case of surgically displaced condyle, the cause of the deformity, i. e. the overgrown condyle—being put in proper position. It should, in conclusion, be stated that there has been no rise in pulse or temperature and only such local pain as might naturally be expected.—*British Medical Journal*, May 25th, 1878.

NEWTON M. SHAFFER.

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## NEWS ITEMS AND NOTES.

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**The Oldest Man.**—The *Lancet* has an account of the oldest man in the world, a native of Bogota, who confesses to 180 years. His neighbors affirm that he is considerably older than he says. He is a half-bred, named Michael Solis, and his existence is testified to by Dr. Hernandez, who was assured that when one of the "oldest inhabitants" was a child this man was recognized as a centenarian. His signature, in 1712, is said to have been discovered among those of persons who assisted in the construction of a certain convent. Dr. Hernandez found this wonderful individual working in his garden. His skin was like parchment, his hair as white as snow, and covering his head like a turban. He attributed his long life to his careful habits; eating only once a day, for half an hour, because he believed that more food than could be eaten in half an hour could not be digested in a day.—*Med. and Surg. Reporter*.

**A Novel Suit.**—A Rutland (Vt.) man, named Lynch, claims \$40,000 damages from the village, for the loss of three children from diseases caused by imperfect sewerage.

**Body Snatching in Ohio.**—Advices from Cleveland state that the trial of Dr. Carlisle and F. G. Minor, for robbing graves, resulted in the conviction of Minor and the acquittal of Carlisle. As soon as the



verdict was rendered Dr. Carlisle was re-arrested for stealing the body of Mrs. Pease from the Ravenna Cemetery.—*Med. and Surg. Reporter.*

**Nothing Like Confidence.**—Financial doctors say the cause of the hard times is "lack of confidence;" this was not the matter with a husband down South, whom Dr. R. L. Payne tells about in his address as President of the North Carolina Medical Association. He was speaking of "mother's marks," and gave this example:—

"A black child was born to a white married woman in my county, and she accounted to her husband for its very dusky hue by assuring him that she had been terribly frightened by a negro man who presented himself before her in a half nude state. The husband was satisfied and is still happy."—*Med. and Surg. Reporter.*

**Composition of the Pancreatic Juice.**—Th. Defresne (*Répertoire de Pharmacie*) has separated three different ferments from the pancreatic juice, each of which has different functions and properties:—

*Amylopsine*, which converts starch into sugar.

*Steapsine*, which splits up fats.

*Myopsine*, which dissolves albumen.

**Necessity for Phosphates in Diet.**—By experiments on young animals, M. Lehmann has shown that a diet containing an inadequate amount of phosphate materially affects the skeleton. In the case of a young pig, which was fed for 126 days on potatoes alone, rachitis was the result of this defective diet. Other young pigs from the same stock were fed the same time on potatoes, soaked flesh, meal, and phosphate in addition, and their skeleton was of a normal character. It was found, however, that there were considerable differences in these animals according to the nature of the phosphate given; for two of the animals, fed with phosphate of potassium, had more porous and specifically lighter bones than other pigs fed with this salt in combination with phosphate and carbonate of calcium.

**The Cause of Leukemia.**—In the *Deutsches Archiv. fur Klinische Medicin*, Aug. 20, 1878, Dr. Naumann has an article setting forth the grounds for believing that leukemia takes its origin in a disturbance of the functions of the liver, consisting in an overloading of the blood with albumen and its derivatives forms, which do not undergo normal changes in the liver, especially the transformation into fat. From this theoretical discussion he advances the suggestion that, from the known effects of phosphorus on the hepatic functions, it is possible that this drug may prove curative in leukemic cases; and in view of the notoriously intractable character of the disease, it is worth a trial.

**The Metric System.**—Among the resolutions passed by the International Congress on Weights, Measures, and Coins, which has just been brought to a close in Paris, is one deploring that England, Russia, and the United States, still hold so much aloof from the metric system, and expressing an opinion that the Governments of those countries should be solicited to "give effect as early as possible to an act of progress so eminently useful to science, commerce, and international relations, as the adoption of the metric system would be."

**Medical Society of London.**—The subject for the award of the Fothergillian Gold Medal, value twenty guineas, for competition in March, 1879, is "General Paralysis of the Insane;" for March, 1880, "The Pathology and Treatment of Dysmenorrhœa."

**Dr. Guinard's Prize.**—A prize of 10,000 francs, founded by Dr. Guinard, has been awarded in Belgium to M. Melsens, for his discovery of the effects of iodide of potassium as a means of removing poisonous metals, such as mercury, lead, etc., from the body. He had already previously received the Montyon prize from the French Académie des Sciences.—*The Med. Press.*

**Tracheotomy in Croup.**—The fatal results of tracheotomy in croup were referred to lately in the Medical Society of Ghent. At the Children's Hospital in Paris, up to 1848, forty-nine operations were followed by forty-eight deaths. In 1858, in the disastrous epidemic from the 15th October to December 31st., only three children escaped out of forty-two operated on. Oppitz, in a tabulated series of ninety-six cases of tracheotomy for the extraction of foreign bodies, found seventy-three cases of recovery; that is, one death out of four. Bou-chut has collected three hundred and eighty-eight cases of tracheotomy for croup, of which three hundred and forty-six were fatal, and forty-two recoveries; that is to say, a mortality of 90 per cent. Thus it may be seen how fatal is the influence of the croupal inflammation by the termination of these cases.—*Louisville Med. News.*

**Does Quinine Affect the Hearing.**—The belief is general among the laity that the prolonged use of quinine affects the hearing. Medical men have generally disbelieved this, and attributed the notion to prejudice. Dr. Roosa, of New York, has been examining the evidence, such as he can procure, and is inclined to believe that in some cases there is a permanent nervous affection of the ear produced, which justifies the opinion of the laity.—*Med. and Sur. Rep.*

**Left-Handedness.**—At the late meeting of the British Association, Dr. H. Muirhead made a communication on "Left-handedness." He thought it depended upon which half of the brain took the lead. Left-handedness once begun in a family was likely to run in it. It was a curious fact that left-handed people had the left foot one-third to one eighth of an inch longer than the right.—*Med. and Sur. Rep.*

**Power of the Emotions.**—A melancholy example of the power of the emotions is reported from Paris:—Dr. Deleau had an only daughter, aged 16, in whom all his affections were centered. This young lady died on August 29th, from pulmonary phthisis, and the father's grief was so intense that, in embracing his daughter, in taking his last adieu, he fell on her corpse and breathed no more! Both were buried in the same vault, in the midst of a large concourse of mourning friends and patients. Dr. Deleau was a rising man; he took his degree in 1863, and distinguished himself as an aurist and laryngoscopist.

# THE HOSPITAL GAZETTE

AND

## ARCHIVES OF CLINICAL SURGERY.

A WEEKLY JOURNAL OF MEDICINE, SURGERY AND THE COLLATERAL SCIENCES.

EDITED BY

EDWARD J. BERMINGHAM, A.M., M.D., and FREDERICK A. LYONS, A.M., M.D.

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### LECTURES.

#### WARM AND HOT WATER IN THE TREATMENT OF LACERATED AND CONTUSED WOUNDS.

A Clinical Lecture delivered at Bellevue Hospital, New York,

BY

FRANK H. HAMILTON, A. M., M.D., LL.D.

Surgeon to the Hospital, Etc.

Dr. Hamilton presented two cases to the class, illustrating in their results, the successful treatment of lacerated and contused wounds by warm and hot water dressings. The cases are as follows, taken from the hospital records by the house surgeon, Dr. E. Hochheimer.

CASE I. John Mayer, æt 20, was run over by two platform cars December 18, 1877. He was placed under the care of a physician at Hunter's Point, but refused to submit to an amputation. On the third day he was admitted to Bellevue Hospital. He was pale, with a complexion slightly bronzed; his breath had a slight saccharine odor; the surface of the body was cold, and his pulse feeble and rapid. He was delirious, talking in a low voice, and incoherently. A lacerated wound was found upon his right thigh just above the knee, ten inches long and closed by sutures. The whole extent of the wound and the underlying tissues to the bone, were gangrenous.

His left thigh was broken three inches above the knee, the upper fragment having descended until it penetrated the joint. The whole limb was swollen, discolored, emphysematous, and pulseless. His constitution did not warrant an amputation, and as death was anticipated within a few hours, very little was done except to nourish and sustain the system. On the following day his mind was more clear, but the gangrene was still extending in both limbs. Amputation was advised, but the parents refused their consent.

*December 23.* The fifth day since the accident. Gangrene was still extending in the left leg involving the whole limb as high as the knee, and the discoloration, swelling and emphysema extending as high as the groin. It was now that the left leg and thigh were enveloped in thick masses of cotton batting, with water at the temperature



of 110° F. The lacerated wound on the right thigh was treated in the same manner. Outside of the cotton batting each limb was enclosed in oil silk. The hot water was directed to be renewed every 20 or 30 minutes day and night.

*December 25th.*—The discoloration, swelling, and emphysema had nearly disappeared from the upper part of the left thigh, and a line of demarcation had commenced forming at the knee-joint. The delirium was abating and he began to take food. On December 29th there was no delirium, and he expressed himself as feeling well.

*January 6th, 1878.*—Thirteen days after the commencement of the hot water treatment, the separation at the left knee-joint was nearly completed, and with the scissors, assisted by the handle of a scalpel, Dr. Hamilton severed the remaining sloughing bands, and removed the leg, without inflicting pain or causing the loss of more than a few drops of blood; the gangrenous slough had already separated from the opposite thigh. The progress of the case continued, interrupted only by the occurrence of a few small abscesses on the right limb, until the 28th of February, when the patella and lower fragment were removed by Dr. Hamilton.

*May 1st.*—Dr. Hamilton removed the projecting lower end of the upper fragment, which had become necrosed, and had spontaneously separated from the living bone. At or prior to this time the hot water applications had been suspended, and the balsam of Peru applied to the granulating surfaces.

*June 24th.*—Resection of about four inches of the lower end of the femur was made to secure a better stump. The operation was followed after 36 hours by a profuse secondary hemorrhage from the femoral artery. Dr. Hamilton opened the wound, retied the artery, and the patient made a rapid recovery. He has now a perfect stump and is walking on an artificial limb.

CASE 2.—Patrick B., aet. 30, married. Admitted June 6, '78. Ireland. Laborer. About two hours before admission patient was injured by having a ton of coal, contained in a tub which he was hoisting, fall on his left foot. The wound bled quite freely so that the ambulance-surgeon, who brought him to the Hospital, applied a compress and bandage.

On admission, he was found to have received a contused and lacerated wound of the left foot, involving a great part of the inner side; another, not quite so extensive, on the outer side, while the skin of the sole was dissected up to a considerable extent.

By the second day after his admission, the hemorrhage having ceased under the compress and bandage, hot fomentations were applied which were exchanged for the hot water bath at a temperature of about 100° F., on the 4th day. At same time a gangrenous strip about 1½ inches wide became evident on the sole, and was thrown off on the 16th day, when it became apparent that the fifth metatarsal bone and the proximal phalanx of the little toe had been fractured. The foot was kept in hot water till the 12th day, when yeast poultices were applied, but foot still immersed two hours daily, the poultices being temporarily removed.

After the slough had separated, a clean granulating surface was left, which was dressed with balsam of Peru.

August 11th a portion of 5th metatarsal, and August 23rd a portion of proximal phalanx of little toe came away. Granulation and cicatrization has progressed steadily, and the wound is now almost completely closed.

Dr. Hamilton, in commenting upon these cases, remarked that in his large experience in military and civil practice he had never seen a patient recover from the condition in which case No. 1 was found on the 3d, 4th and 5th days after the accident, whether amputation was practiced or not, and there was no other means known to him in surgical science which in his opinion could have saved the patient from death, except the hot water treatment. Dr. Hamilton then referred briefly to several other cases of arrest of gangrene and spontaneous amputation under the hot water treatment, in his own practice, and which had been published by a Dr. Frederick E. Hyde, of this city, in the January and February numbers of the *Buffalo Med. and Surg. Journal* for 1876, and which has been published in pamphlet form by Wm. Wood & Co.

Dr. Hamilton further remarked that this mode of treatment of lacerated and contused wounds was not new with him, that it had been practised and recommended by Hippocrates, by Celsus, by Galen, and in the 9th century, by Rhazes. Frequent allusion has been made to it by later writers, but more especially by von Langenbeck, Billroth and Schede, the latter of whom has written an interesting pamphlet upon the subject. But certainly none of the later writers have considered the value of water at a temperature so high as 100° F. their observations having been limited to the use of warm water alone, and not to the use of hot water, properly so-called. Indeed, while they have spoken of the efficacy of warm water in the reduction of inflammatory action and the prevention of pyemia and septicemia, they have scarcely alluded to its efficacy in the treatment of traumatic erysipelas and they seem not to have had any experience in the use of *hot* water as a means of arresting gangrene. My own personal experience alone has led me to the discovery of the value of hot water in traumatic gangrene. Incidentally I would remark that the treatment of traumatic erysipelas with warm water dressings has been fully illustrated in a paper written by Dr. A. H. Goelet, of N. Y., published in the *Am. Med. Weekly*, May 15th, 1875, his experience having been drawn chiefly from cases treated by me in one of the Reception Hospitals of this city, while I was acting as surgeon-in-chief of the Reception Hospitals, and Dr. Goelet was acting in the capacity of House Surgeon. I may summarize the accidents in surgery connected with lacerated and contused wounds, which either warm or hot water have exhibited a wonderful power to control, as traumatic inflammation, traumatic erysipelatous inflammation, septicemia, pyemia, and gangrene.

In using warm or hot water, wherever it is practicable, the bath or complete submersion of the injured member is always to be preferred, the limb being suspended in the water without sutures, adhesive



strips, bandages, or dressings of any kind. If there should be any cause for delay after the infliction of a severe lacerated wound, in resorting to the bath, it will be because there might be some apprehension of hemorrhage being thereby invited and promoted. But if the vessels are properly tied this delay need not extend beyond 12 or 24 hours.

It is seldom found necessary to continue the bath beyond the seventh or tenth day, or beyond the period of active inflammation, and it is even sometimes quite objectionable to continue it beyond this period on account of the oedema which is apt to ensue. The oedema being in part due to the necessarily dependent position of the limb, and also in part to the endosmosis of the water by the open tissues. After this period, the warm water or hot water, as the case may demand, fomentations are to be preferred—the limb being laid, as in the case of an arm, upon a pillow covered with oil-cloth and enveloped with large masses of cotton batting saturated with water. Even during the period of acute inflammation, if the patient becomes weary of the confinement of the limb, to the bath, the fomentations may be substituted during the night or any other time when it may seem to be necessary.

It may interest you to know that according to recent observations, hot water, or water at a temperature as high as can be well borne, has found other applications. Dr. Emmet, of this city, and the late Dr. Pitcher, of Detroit, have employed hot water injections with immediate and often permanent relief in cases of vaginal eczema and other vaginal irritations. Dr. Agnew, of this city, has employed it with great advantage in certain inflammations of the structures of the eye, and Dr. Piffard has recommended it in eczema of various parts of the body, and I have myself been long familiar with its use in this and other forms of cutaneous eruptions. Its efficacy in allaying the stubborn pruritis of almost all cutaneous affections has long been a matter of observation with me, but in order to be efficacious it must be applied with a sponge and at a temperature which is, for a moment, actually painful. The bathing tub, which is placed before you, intended for the foot and leg, was imported from Germany, but it has certain defects which I have sought to remedy, and Mr. Reynders, of this city, now makes, under my instruction, a much more simple, less expensive, and more useful bath\*.

\*In addition to the papers upon the use of Warm and Hot Water in Surgery in the foregoing clinical remarks, we would refer the reader to a paper by C. Henri Leonard, M.D., of Detroit, published in the *Chicago Med. Jour.*, for Sept., 1875, to a small pamphlet issued by John Reynders & Co., of New York, and to editorial remarks in *Chicago Med. Jour.*, for August, 1875.



## A CLINICAL LECTURE.

Delivered at the Pennsylvania Hospital, Philadelphia.

BY

RICHARD J. LEVIS, M.D.

Visiting Surgeon to the Hospital,

(Reported for THE HOSPITAL GAZETTE.)

## I. THE OPERATION FOR CATARACT. II. THE OPERATION FOR EXTIRPATION OF CANCER OF THE BREAST. III. CONCUSSION OF THE BRAIN.

## I. CATARACT.

This is a case of hard, or senile cataract. A structural change takes place in the lens such as may take place in any other part of the body. The first objective symptom of cataract is opacity of the area of the pupil. As the disease advances the opacity becomes very marked.

No one operation for the cure of cataract has stood the test completely, particularly in such a transition stage as the present. There is, therefore, no universally agreed and definite manner of going through the several stages of the operation. The great object, of course, is the removal of the opaque lens. To compass this the iris and cornea must be cut through and the lens freed by the laceration of its anterior capsule.

The way in which I perform the operation for cataract is a slight modification of that proposed by Von Graefe. The performance of the old flap operation involved an incision running nearly one-half the entire length of the cornea. Von Graefe's operation, on the other hand, only involves about one-quarter of the length of the cornea. In this latter operation also a piece of the iris is cut out, and afterwards the anterior capsule is lacerated.

My slight modification of the Von Graefe operation consists in the fact that I make an incision quite through the structure of the cornea, then perform iridectomy, so getting access to the lens, then transfix the elastic coat of the anterior capsule. So soon as the capsule is divided the lens is expelled by the elasticity of its the capsule's coat. Von Graefe's operation was perhaps rather sclerotic than corneal.

With regard to the manner in which the lens should be removed it is all a matter of habit. At first it was customary to introduce a spoon or loop for its removal, but now nothing is used. Occasionally the incision in the cornea is made too small and so there is not room for the lens to escape intact—some of its soft periphery is scraped off during its way out, and these scrapings remaining in the body of the eye may act as foreign bodies and so bring on inflammation. Another accident of the operation is the danger of hemorrhage into the eye from the wounded iris.

The operation, taken as a whole, is not painful and does not require an anesthetic unless the patient has no control over himself. In performing this operation Von Graefe was in the habit of using a long, narrow, knife. I use a Beer's knife. I tell the patient to lie down, because I want the head to be on a level with the body. I also want

the patient to look this way and that just as I may direct during the operation.

(The incision in the cornea was then made and a small piece of the iris cut out. There was then no difficulty in lacerating the anterior capsule of the lens, which was at once removed.)

The man's vision in future in this eye will not, of course, be acute, as one of its lenses has been removed. He will need spectacles, but still he can now see in this eye and before he could not. I will order a drop of atropia put into the eye to dilate the pupil and so relieve the pain. I cover both eyes with a piece of adhesive plaster spread on black silk. The ordinary after treatment of cataract is a very grave error. No light whatsoever must be allowed to reach the eyes for some days to come.

## II. EXTIRPATION OF CANCER OF THE BREAST.

This woman has already had two operations performed for the removal of this cancerous growth. Neither of them succeeded in affording her anything more than temporary immunity from the growth. In fact such operations, in the majority of cases, are undertaken merely as palliatives, for the cancer is always liable to return again, particularly when it is situated in the breast. The operation is often justified by the condition of the patient—by the great suffering which she endures.

This woman is of very vigorous constitution and has borne very well thus far her disease, but she is very anxious to have me perform another operation upon her right breast and axilla for the growth has steadily made its way into the space under her right arm. There is no cancerous cachexia present and the patient has a very strong pulse.

You see this large sprouting mass very much disposed to bleed and presenting very marked axillary complications. The cancer has grown at such a desperate pace since the last operation that I shall have to make the extirpation more thorough and remove the whole mammary gland, and follow it up well into the axilla.

I begin by making an elliptical incision in the line of the great pectoral muscle on the right side. I will make the lower incision first. Such an elliptical incision will enable me to remove the mammary gland entire and also all the cancerous growth. To reach the axillary space I flex the right elbow and let the assistant hold the arm well out. The two lines of incision meet in the axillary space.

The mass you see presents the usual appearances of malignant growth. As soon as I can bring it all away I will begin to look out for the hemorrhage from the mammary vessels, which is very copious.

(The cancerous growth and entire mammary gland were removed; the spouting arteries tied, the sides of the wound brought together with sutures and the customary dressings applied.)

## III. CONCUSSION OF THE BRAIN.

This man, a sailor, was carried into the hospital the other night in

an entirely unconscious condition. The story brought with him was that he had fallen down the hold of his vessel a very short time before his admission. There was found, upon examination, to be a bad contusion of the back of the head. The man's symptoms might have been those of either compression or concussion of the brain. There was extreme depression of the vital powers. The respiration and circulation were very feeble. It was impossible by any means to rouse him from his stupor. The pupils were greatly contracted, but not affected by light. In compression the symptoms are generally different, but for all I knew there might be some compression in this case. It was, in fact, impossible for us to make up our minds definitely at that time whether the case were a complicated one, or whether it was pure compression, or pure concussion. I inclined, however, to the last view, that of concussion. The sclerotic was perfectly clear. The man was rapidly returning to consciousness.

Our treatment was of necessity entirely tentative. Rest and moderate stimulation were its main features at first. The stimulus was administered in the shape of injections of strong beef tea. We did not want to attempt strong stimulation in the fear of causing inflammation of the brain. I left the case, giving explicit orders to the resident that at the very first pronounced signs of reaction from the shock the man should be given a full dose of the bromide of potassium and a powerful cathartic. The reaction came in time and my orders were carried out.

I have brought the man before you to-day. He is certainly doing very well. His respiration and pulse are much stronger and more regular and the most careful examination fails to reveal any paralysis of any part of the body. There are still the marks of the contusion on the back of his head and you see also a pretty bad bruise on this right arm and shoulder. I do not believe that any mechanical injury to the brain was received and I have to-day been convinced that the case is one of simple concussion without any depression of the bone. His sensations of touch are very good. You see that he draws both of his legs away and moans when I prick him with a pin. A loud call in his ear arouses him into something very like intelligence. He will, if properly attended to, no doubt recover shortly the full use of all his powers both bodily and mental.

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## ORIGINAL ARTICLES.

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### TWO MEDICO-LEGAL CASES OF UNUSUAL INTEREST.

BY

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Syracuse University—New York.

There have been, within a few months, two medico-legal cases in this city, the trial and result of which are not without interest to the profession.



The first case was as follows: Mr. Eaton, a competent and careful druggist, misread the characters of a not over-clearly written prescription. The patient, in consequence, took at bedtime the eighth of a grain of sulphate of atropia instead of the sixty-fourth, as had been intended.

The specific symptoms of the drug were soon manifested. The mouth and throat became dry; the pupils were widely dilated; there was excitement with delirium.

Some months after, the patient sued the druggist, claiming to have suffered months of poor health and permanent injury as a result of the dose. The damages were laid at a thousand dollars.

On the trial the evidence of the patient's physician, who knew his condition before and subsequently to taking the atropine, and who was ready to testify that on the following day he observed only dilatation of the pupils and dryness of throat, and that within three or four days these symptoms had disappeared leaving the patient as well as before, was excluded under the following state law: "No person duly authorized to practice physic or surgery shall be allowed to disclose any information which he may have acquired in attending any patient in a professional capacity, and which information was necessary to enable him to prescribe for such patient as a physician, or to do any act for him as a surgeon."

This ruling would seem to have been a wide departure from the original intent of the law which was to prevent the revelation of personal and family secrets. In this case it became necessary to the defence to show by medical evidence that the single dose of atropine taken produced but temporary suffering and inconvenience. This was excluded under the law of professional secrets quoted above, while the testimony of the patient and his wife as to his desperate condition for many weeks and months was admitted, and was doubtless believed by the jury.

There was no lack of medical evidence to show that no fatal or permanently harmful result had ever followed the eighth of a grain of atropine; and that more than this is sometimes given hypodermically. It was in evidence, too, that many physicians and druggists read the prescription as compounded by Mr. Eaton. The jury, after many hours of consultation, finally united on a verdict of four hundred and fifty dollars for the plaintiff.

The trial of the second case has just been concluded. The evidence went to establish the following facts:

In April last, a house servant, aged forty-two, slipped on the wet floor and injured her wrist. A homœopathic practitioner residing near by saw it within an hour. "Doctor," she exclaimed, as he entered, "I've broken my arm!"

He attempted to comfort her by saying, "I hope not, I guess it is only a sprain." He then examined the limb, and, without speaking of fracture brought from his residence a straight splint, which he padded and applied to the dorsum.

Having placed the arm in a sling and given her an arnica solution

to pour on in case of pain, he instructed her to be careful, and to see him on the second day or the third.

On the third day she presented herself at his office. After re-examining the arm he proposed to transfer her to the care of another gentleman, also a homœopathist, who, he said, gave particular attention to surgery. To this she assented and they went together to his office. Here the injury was again examined, and pronounced for the first time a fracture of the lower end of the radius.

Having turned the case over to the practitioner of surgery, the first gentleman saw it no more after this third day. But unfortunately for him, the woman was living with the family of a lawyer. Before the injury was six weeks old, suit was brought for malpractice. The trial came on about six months after the fracture occurred. There was yet remaining some swelling, and stiffness, and weakness of the wrist, and considerable deformity. Apparently the fracture had not been reduced; at least it had not been kept reduced, and it appeared in evidence that the second practitioner told the plaintiff when he assumed charge of her case, that she would have "a crooked arm." The deformity, however, was not greater than the writer has seen in several instances where there had been no lack of care and attention, or surgical skill.

The defence endeavored to establish that deformity after Colles fracture is the rule rather than the exception; that the straight splint is as good as the curved; that the treatment of the first three days, if not positively harmful was not material to the result. The medical evidence on some points was rather conflicting, and the jury after being out for two hours found for the plaintiff in the sum of four hundred dollars.

Each of the trials lasted nearly a week, and elicited a good deal of interest on the part of the profession.

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## HOSPITAL RECORDS.

### THE CHILDREN'S HOSPITAL, PHILADELPHIA.

#### EXCISION OF THE HIP JOINT IN CHRONIC ARTHRITIS, ILLUSTRATED BY SEVEN CASES—SERVICE OF H. LENOX HODGE, M.D.

Reported by JOHN MADISON TAYLOR, M.D., House Surgeon.

CASE I. C. L., æt. 4, admitted Dec. 1, 1869, with joint disease of the right hip. Disease had then existed for one year. He improved slightly after his admission, but in November, 1870, was obliged to go back to bed, as an abscess had formed in the upper part of the thigh. While in bed, extension was made by means of a weight and pulley. After the formation of the abscess his health failed very much, he being much troubled by persistent diarrhœa. Excision of the joint was determined upon. The operation was performed on Jan. 28, 1871, by a single incision behind the trochanter in the line of the limb. The head and neck of the femur were separated from their attachments, raised, and removed below the trochanters by means of a saw carried



below the bone. Some diseased parts of the bone were removed from the acetabulum by means of a gouge. The wound was closed with sutures and extension instituted by adhesive plaster with weight and pulley. The effects following the operation were good, and the patient at once began to improve. The diarrhoea ceased. He grew stout and robust. He walked without using crutch or cane, wearing a shoe with the sole and heel thickened about three quarters of an inch more than the other. He was discharged well in October, 1871. The wound had closed, and the cicatrix was well hardened.

CASE II. D. C., aet. 7, admitted April 22, 1874, with chronic arthritis of right hip. Was pale and emaciated. Had received a fall one day about four months previously. The next day complained of pain in the knee and hip. Was treated by extension with weight. An abscess appeared discharging behind the trochanter. The limb became shortened. Knee partially ankylosed when admitted. Motion at hip not impaired. It was thought advisable to remove the diseased bone without delay. Excision of the joint was performed on May 6, 1874. Head of femur was found completely separated by ulcerations and lying in a pocket formed by surrounding muscles. The acetabulum was not diseased except at lower part of rim. The femur was divided below the trochanters. The diseased portion of the acetabulum was also carefully cut away. The patient reacted well. Pulse gained in rapidity; temperature fell from  $102^{\circ}$  to  $99^{\circ}$ . From then until May 12, it ranged between  $99^{\circ}$  and  $100^{\circ}$ . On that day it ran up to  $105^{\circ}$  and an erysipelatous inflammation appeared at the wound, covering limb, abdomen, scrotum and genital organs. The temperature declined, the respiration became difficult, vomiting began, and the patient died from exhaustion on May 17, the twelfth day after the operation. The erysipelas appeared to have been due to the weather, which was cold and moist after the operation.

CASE III. J. M., aet. 10, admitted March 27, 1872. Mother died from consumption. During winter of 1873 he had complained of pain in the knee. Examination revealed chronic arthritis of left hip. Some boys, he said, had thrown him down and jumped on him at school one day. Was treated by extension and counter-extension to limb. His general health began to fail so much that it was thought advisable to perform excision, which was done on May 14, 1873. The femur was dislocated on the dorsum of the ilium. The head of the femur was nearly destroyed by ulceration, and its neck was carious. The anterior and inferior portions of the rim of the acetabulum were also affected. The head and neck of the femur were removed below the trochanters. The carious part of the acetabulum was gouged out. There were no signs of depression after the operation. He was discharged March 23, 1874. He is now in excellent health and has a good appetite.

CASE IV. L. C., aet. 6, admitted Sept. 13, 1870, with chronic arthritis of left hip-joint. Put to bed and treated by extension, but abscesses opened on the outer part of the thigh. He lost so much flesh and strength that it was determined to excise the hip-joint. This was done on May 25, 1872. The head of the femur was found



to be lying on the dorsum of the ilium. The head and neck of the femur were carious. The acetabulum was slightly ulcerated. The condition of the wound improved after operation. By June 12 most of the wound had healed, but long sinuses from the old abscess still remained. He was discharged on July 24, 1874. He could then walk unassisted, but some of the sinuses were not yet healed.

CASE V. L. M., aet. 8, admitted June 6, 1873. Had been treated for hip-joint for over two years. The disease at the time of his admission was far advanced, and his general health very poor. The hip-joint was excised shortly after admission. The head and neck of the femur and portions of the acetabulum were removed. The head and neck of the femur were found to be almost entirely absorbed. There were bands of cartilage binding the femur to the sides of the acetabulum, both on the inner and outer surfaces of the capsular ligament. The operation was well borne. The wound closed soon afterwards, but several deep sinuses remain, showing the presence of caries.

CASE VI. C. G., aet. 6, admitted May 10, 1871, suffering from chronic arthritis of left hip-joint. A large abscess soon began to form on the outer part of the thigh. This was not painful, but contained a large amount of pus. The pus was aspirated, but again collected and made an opening. The patient became hectic and emaciated. An obstinate diarrhœa came on. Excision was performed on June 29, 1872. A large part of the femur was removed in sections. The acetabulum was found to be perforated by ulcerations. The wound was dressed with oil, and extension was instituted with weight and pulley. Gradual improvement followed the operation. The wound healed slowly, but perfectly. The girl is now strong and healthy-looking, one of her shoes has had a thick sole added to it, so that the limb is useful in walking.

CASE VII. E. S., aet. 5, admitted February 18, 1871, with hip-joint disease on the left side. There was also a large and painful abscess on the inner side of the thigh. The disease had existed for about two years and had followed a fall from a crib. The abscess was opened on the day of admission. Her health soon began to fail very rapidly. Early in May two other abscesses appeared. The patient was also attacked with diarrhœa. Thinking that she could live but a little while the abscess above Poupart's ligament was opened on May 19, and on May 20, 1871, the operation of excision of the joint was performed. The femur, acetabulum and rami of the pubes and ischium were all involved. Parts of these bones were removed and the denuded surfaces scraped. The section of the femur was made below the trochanters. The abscess above Poupart's ligament was found to connect with the one in the thigh. A twisted cord of oakum was passed through the wound made for the excision, and carried through the obturator foramen and along the sinus to the opening above Poupart's ligament. This seton was allowed to remain in situ. The edges of the wound were brought together with sutures and extension was instituted.

The patient began to improve immediately after the operation. The hectic and diarrhœa disappeared. The wound began to heal.

The child gained strength, flesh, and appetite. About seven months after the operation, her liver began to enlarge from amyloid degeneration. Diarrhoea returned, and was, at times, very persistent. She grew very thin and pale, and died on July 6, 1872, nearly fourteen months after the operation.

## PERISCOPE.

### INTERMITTENT FACIAL SPASM CURED BY NERVE STRETCHING.

Dr. Babin, in the *Berliner Klin. Wochenschrift*, No. 40, 1878, reports a case of facial spasm of one side having lasted six years. The subject was a healthy female of 35, and no cause could be discovered by a thorough examination. All the muscles innervated by filaments of the left facial nerve were the seat of chronic spasms recurring every two or three minutes. This affection is well known as most rebellious to all kinds of treatment, including electricity, and the reporter has never cured a case. Dr. B. exposed the facial nerve just below the concha, under Lister, found the trunk of the facial rather red, raised it up, and pinched it sharply between the branches of a torsion forceps. Paresis of the face lasting about half an hour followed; the spasm never returned, and the wound healed by first intention.

E. C. SEGUIN.

### CONTRACTION OF THE FINGER—(DUPUYTREN'S CONTRACTION).

Mr. William Adams, in a paper read before the Royal Medical and Surgical Society, *Brit. Med. Jour.* June 29th, 1878, describes this condition, and states that it is most commonly met with in men about the middle age of life, or beyond it. It occurs rarely among children and adolescents. Mr. A. had never seen a case in a woman. The ring finger is most frequently affected—especially if only one be involved—but generally, the adjacent fingers become affected. The articulations are healthy—the joints can be flexed freely—but any attempt at extension is painful—this latter being followed by the appearance of a tense contracted cord, passing from the finger into the palm of the hand—to which the skin of the palm is closely adherent. This form of finger contraction was first accurately described by Dupuytren—though its pathology and treatment is still subject to discussion. Dupuytren, in dissecting a hand subject to this condition, found that a division of the palmar aponeurosis caused an immediate relaxation of the fingers. The tendons were normal—their sheaths were unopened—the joints, ligaments, synovial membranes were natural and normal.

The cause of this condition is believed by almost all the writers on the subject to be strictly local—arising from the pressure of tools, &c. There is, however, a gouty form. Mr. A. regards it as nearly always depending on a gouty diathesis.

The treatment may be either mechanical or operative. The former seems to be applicable to the slight cases only. In severe cases, and



those of long standing, mechanical treatment is useless. The operation was first performed by Dupuytren, in 1831. He made an open wound—transversely and the wound gaped very much from the extension, and suppuration followed. Mr. A. condemns this open method, which has the support, however, of many eminent surgeons—both American and English. Mr. A., after an extensive experience, now proceeds as follows: A small tenotome—smaller than ordinarily used—is introduced between the skin and contracted cord, which is divided by cutting downwards very slowly and cautiously, taking care not to dip the point, or divide any structures, except the contracted band of fascia. Several punctures may be necessary. The first one at the greatest distance from the finger, the second should divide the same cord as the first, but as near the finger as possible, thus leaving the contracted band in the palm of the hand, when adherent to the skin, isolated. The 3rd and 4th punctures the lateral bands or digital prolongations of the palmar fascia, which usually pass from the central cord in the palm to the adjacent sides of the fingers. Care should be used—to avoid the vessels and nerves along the sides of the fingers. Other incisions or punctures may be necessary—but care should always be used.

The after treatment consists of *immediate extension* and a retentive splint. The bandage is removed the 4th day. Extension is to be kept up by the use of the splint, worn night and day—for two or three weeks—changing the bandage every two or three days. After three weeks, the splint at night only, for an additional three or four weeks. Free motion is to be encouraged when the splint is not worn.

NEWTON M. SHAFFER.

### ABOUT BOOKS.

*Transactions of the American Gynecological Society, Volume 2, for the year 1877, 8 vo., pp. 697. Boston, Houghton, Osgood & Co., 1878. Price, \$6.50.*

In our review last year of the first volume of the transactions of this society we expressed the hope that future meetings would give origin to others of an equal standard of excellence. We need not say more of this one, than that it more than realizes our hopes, and reiterate that succeeding numbers may equal the one now before us. The American Gynecological Society has the distinguished honor of having given to the profession the finest series of transactions that ever emanated from a learned association of the kind. Such praise may seem fulsome, but we cannot refrain from expressing our admiration of the splendid series of papers with which it has presented us.

The volume contains twenty-seven papers by the most distinguished specialists in America, and it is needless to say that every one of them is replete with the most valuable information, and shows unmistakable evidence of painstaking and elaborate research.

It would be impossible in the space allotted to us to point out the



particular merits of each paper, or even to signalize the numerous important subjects discussed.

The annual address of Prof. Fordyce Barker, the president, marshals the rest and is a fitting entrance to the well-filled gallery beyond. Dr. Barker's address is characterized by that graceful style and elegance of expression which has so often charmed and so long been familiar to those acquainted with his justly celebrated labors. Opening with a deserved compliment to Dr. Chadwick for the careful manner in which the previous volume of transactions had been prepared, he then paid a brief but eloquent tribute to the deceased fellow, the late Dr. Buckingham. A few words were then devoted to the qualifications that the society should seek in those whom they selected for the honorable position of fellowship, and some reasons were given why they should make the transactions a success. The president then entered more fully into his subject, which was an able and eloquent plea for medical gynecology. He pointed out what great and brilliant successes had been achieved in the domain of surgical gynecology, but signalized the danger of travelling too far in this direction and performing operations that were not really necessary for the relief and safety of the patient. He then showed how there were certain questions that surgical skill had aimed at solving but were still *sub judice* and to the proper solution of which the aid of medicine might be profitably called in. Among these were indicated displacements and flexions. An extremely interesting case was cited in which marked ante-flexion existed for years without inconvenience. A stem pessary was inserted and the most grave results followed. In closing, Dr. Battey's operation was briefly discussed and some interesting cases cited. The paper well repaid us for the perusal.

Dr. Chadwick, of Boston, gives us some valuable information about the structure of the rectum.

The paper of Dr. J. Byrne, of Brooklyn, on "Amputation and excision of the cervix uteri; their indications and methods" is a particularly able one, and the discussion that followed will be found valuable and extremely interesting. Dr. Byrne strongly advocates the use of the galvano-cautery.

Prof. John C. Dalton's "Report on the corpus luteum" sheds much new light upon the subject, and confirms his previous theories, which, presented to the American Medical Association twenty-five years ago received its prize, and which, in the language of the president in announcing Dr. Dalton's paper, "has remained the most valuable physiological contribution ever made by an American to the department of medicine which it is the province of this society to cultivate." There are twelve very handsome chromo lithographic plates with this paper.

Dr. Wm. Goodell, of Philadelphia, records an interesting case of vaginal ovariectomy.

The paper of Dr. Robert Battey, of Georgia, is one of the most valuable in the book and the discussion is quite spirited. The following are the conclusions:

"1st.—In those cases of absence of the uterus in which life is

endangered or the health destroyed by reason of the deficiency, the removal of the ovaries is at once the hopeful and the only means of permanent relief.

"2D.—In cases where the uterine cavity or vaginal canal has become obliterated and cannot be restored by surgery, if grave symptoms be present, the removal of the ovaries becomes a last and only resort and may be hopefully invoked in the case.

"3D.—In cases of insanity or confirmed epilepsy, dependent upon uterine and ovarian disease, the operation is justifiable as a last resort and when other means of cure have failed.

"4TH.—In cases of long protracted physical and mental suffering, dependent upon monthly nervous and vascular perturbations, which have resisted persistently all other means of cure, the question of a resort to the operation is to be committed to the prudent judgment of the conscientious practitioner in each particular case."

Dr. Paul F. Mundé adds considerable to our knowledge of the electrolysis of ovarian tumors, and Dr. Emmet contributes a valuable paper on "Congenital absence, and accidental atresia of the vagina."

There are many other excellent papers but their enumeration is needless.

At the end of the volume is a complete index of all papers on gynæcological subjects from July 1st, 1876, to January 1st, 1877. This feature alone commends the work to every one at all interested in the subject of obstetrics and diseases of women, and the record is to be continued every year, thus making it a most valuable work of reference for all future time.

The publishers have made this volume uniform with the previous one, and it is a most perfect specimen of their art.

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*Fowne's Manual of Chemistry. Revised and Corrected by Henry Watts, B.A., F.R.S. A new American from the Twelfth English Edition, Edited by Robert Bridges, M.D., pp. 1027. Philadelphia, Henry C Lea, 1878.*

In chronicling the appearance of a new edition of such a well-known and such a thoroughly appreciated work as Fowne's Chemistry there is very little to be said. The immense number of editions that it has already gone through is a sufficient and satisfactory evidence of its high standard of excellence, and of the exalted opinion held of it by all students of chemistry.

Such a large number of changes and additions have been made that in England it was thought necessary to change its form and separate it into two volumes, but the American editor, though omitting nothing, has, by judicious management of the text, been able to keep it still within the bounds of one volume.

The great mass of alterations and additions has been made in the portion devoted to organic chemistry, and in fact this whole division has been almost entirely rearranged. No portion of the work, however, has suffered from want of careful revision, and it is therefore in



every respect up to the latest discoveries and advancements of the day. The American editor has done his share of the work by adding all important facts that have come to his notice since the English edition made its appearance. A beautiful plate has been added, showing the spectra of the important metals.

There is no need to prophecy the same success in the future as the work has met with in the past.

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*A Clinical History of the Medical and Surgical Diseases of Women.*  
By Robert Barnes, M.D., London. Second Edition. 8vo., pp. 784.  
Philadelphia, Henry C. Lea. 1878.

The distinguished author of this treatise has been long known as a writer of considerable ability. Couple with this the fact that he is a gentleman of recognized authority and of large gynecological experience, and we would naturally expect a work from his pen of more than ordinary merit. In this, although we cannot say we have been disappointed, still there are other standard works, take, for instance, that classical work of our own countryman, Thomas, which seem to us to be more systematic, and better adapted for the use of students and general practitioners. To a person who has already had experience in gynecology, the work is one of more than usual value. The author is terse and conservative, and inspires the reader with confidence, and we think no one will ever regret having invested in a work of this character. We can conscientiously recommend it to every gynecologist, and can assure him that he will find many valuable suggestions in its pages.

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#### NEWS ITEMS AND NOTES.

**To Prevent Suicide.**—The International Medico-Legal Congress opened Aug. 12; in the palace of the Tuileries, Paris. In relation to the prevention of suicides, M. Jeannel proposed as the only means in his opinion to diminish their number, to give the bodies of suicides to the anatomical amphitheatres.

**Advantages of Legal Control over Prostitution.**—The classical work of Parent Duchatelet, on Prostitution in Paris, contains this passage: "If legislation cannot render men virtuous; if it cannot correct the judgment and repress the impetuosity of passions which appeal to their senses too loudly to leave them the consciousness of duty; at least, it may meet the danger to which the imprudent expose themselves, and, for the sake of these men's wives and children, look after the health of the guilty, in order to preserve the innocent. I will go further, for I maintain that it ought to do so, and that those who have neglected this important duty have been unfaithful to their trust, and can only be excused by their ignorance of the benefits of the sanitary surveillance of prostitution."—*Med. and Sur. Rep.*

**Death from Vomiting During Ether Anæsthesia.**—The *Liverpool Daily Post* records a case occurring at the Northern Hospital



in which vomited matters found their way into the windpipe and caused rapidly fatal asphyxia. Shortly after the administration of ether the patient commenced to vomit, and it was subsequently found that a portion of the vomit went into the windpipe and lungs. The windpipe was opened, and every effort was made to save the man's life, but in vain.

**Clinical Thermometer.**—*Medical Times and Gaz.*: Sir. Humphry Davy in his young days assisted Dr. Beddoes, who at that time was bent on curing all diseases by the inhalation of gases. It so happened that Davy was accustomed, before applying the inhaler, to ascertain the temperature by placing a thermometer under the tongue. While thus employed on a countryman, who fancied this was the wonderful process he had heard of, the man exclaimed that he already felt better. Davy took the hint, left the thermometer in its place some time, and reapplied it every morning. His patient improved in health, and ultimately got quite well without any other treatment.

**Color Blindness.**—M. Delbœuf, says *La France Médicale*, has found that when a person afflicted with color-blindness looks through a layer of fuchsine in solution his infirmity disappears. M. Joval has made this discovery practical by interposing a thin layer of gelatine tinted with fuchsine between two glasses. The latter are said to correct the difficulty.—*Boston Med. and Surg. Jour.*

**Compressed Air.**—According to a Danish physician many deaths have resulted from the use of compressed air in affections of the chest. Post mortem in one case enormous bullæ were found in the heart, liver, and principal viscera. M. Paul Bert, of Paris, has met with like results in experiments on animals.—*Boston Med. and Surg. Jour.*

**Solvent for Quinine.**—Batterburg (*British Med. Jour.* finds milk an agreeable and convenient solvent for quinine. One grain to the ounce is hardly perceptible to the taste. Five grains in a tumblerful of milk lose all their bitterness.

**Ovariectomy During Pregnancy.**—Mr. Spencer Wells records seven other cases of ovariectomy performed during pregnancy, making, with the two previously announced, nine in all of such operations. Of these nine operations only one was fatal to the mother, and in five, the pregnancies were not interrupted. This certainly shows a marvelous success under extremely untoward circumstances.

**The Telephone Saves a Life.**—A striking instance of the value of this new invention has just occurred in our city. Dr. Carson, of Bowling Green, had brought to Dr. W. O. Roberts a case of traumatic aneurism of the femoral artery, the result of a gunshot wound received two months ago. The opening in the integument had healed, but the scar over the wound of entry was thin and bulging. While the patient was resting from his railway ride, in order to be in the best condition for the proposed operation, the cicatrix gave way and the blood burst forth. Dr. Roberts, apprehending the possibility of

this untoward event, had ordered the patient to be closely watched, leaving directions that he be sent for instantly should hæmorrhage occur. Toward midday Sunday the hæmorrhage came, and a messenger was at once dispatched to Dr. Roberts's house, but he was absent. The doctor's wife at once telephoned him at his office, more than a mile from his house, but quite near the infirmary. In a few moments he was at the bedside of the bleeding man, and with the clever assistance of Drs. Holloway and Coomes, who fortunately were near at hand, he cut down and ligated the femoral artery at the seat of the wound, which was at the upper end of Hunter's canal. We hope at an early day to publish a full history of the operation.—*Louisville Med. News.*

**An Ample Hospital Staff.**—We read in a letter to the *Boston Med. and Surg. Jour.*, on the Hospitals of Chicago, that the "Woman's Hospital of the State of Illinois" is a small hospital situated in the south division of the city, having accommodations for twelve patients. The medical staff consists of a surgeon-in-chief, four assistant surgeons, two assistant physicians, an electrician, a resident physician, and eight consulting physicians—seventeen in all.—*New York Med. Jour.*

**Turkish Doctors in Tennessee.**—Fadia Ali and Nageeb, the first a Turkish Doctor, and the second his student, have settled in East Tennessee, with some other members of a Turkish colony.

**Examination of Seminal Stains Found on the Wooden Floor of a Room.**—Dr. Gallard, in an article in the *Gazette des Hopitaux*, 1878, No. 44, arrives at the following conclusions: 1. The examination of these stains may give as authentic results as that of stains on linen or clothes. 2. If the semen form a sort of slightly adherent varnish on the floor, the flakes of which are easily separated, the examination is less difficult than when it has to do with linen or cloth, as it is only needful to dissolve the dried semen in a little distilled water. But if the semen have soaked into the wood, a little water must be placed in contact with the stain for a time, and the wood must be scraped with a scalpel.

**Antiseptic Inhalation in Phthisis.** Eade. *L'Union Médicale*, Sep. 5, 1878, page 364.

The author has recourse to carbolic acid vapors to diminish the muco-purulent secretion, and to lessen the cough and debility incident thereto in consumptives. Pour into a narrow-necked jug or pitcher, 250 grams of moderately warm water, and add 60 centigrams of carbolic acid. Shake, and let the patient inhale the vapors for ten minutes. This may be done three to five times in the twenty-four hours, during the night if necessary. It is also useful in bronchitis to facilitate expectoration.—*Chic. Med. Jour.*

**Propylamine in Chorea Minor.** *Pertz. Intelligenzblatt.*; *sum. in Phil. Med. Times.*—Purckhauer gave propylamine in daily doses of 1.0 to 1.25 (R. Propylamine 1.0; aq. dest. 120.0; sp. menth. pip. 25.0. Sig. Tablespoonful every hour) to six persons suffering from chorea. The disease was overcome in three or four days, even where it had existed



weeks. The remedy has not been used long enough to show whether such results are to be looked for in cases of rheumatic origin only.

**Perfumed Iodoform**—*New Remedies*.—Mr. G. N. Keyworth, at the Dublin Pharmaceutical Conference, described a method of preparing a perfumed iodoform. Since the recent publication in the *Brit. Med. Jour.* of the papers by Mr. Berkeley Hill and others, on the therapeutical use of iodoform, this drug has come into considerably increased use. Its volatile and unpleasant odor has proved to be an obstacle which some have endeavored to overcome by the use of a collodion film, others by the combination of tannin. Mr. Keyworth's perfumed solution is prepared by shaking tincture of iodine with a fragment of potash until the color is removed, and covering the odor of the iodoform produced by the addition of eau de cologne or lavender-water. The author also speaks of lint that has been dipped in this liquid, and afterward dried, as being a very good application in indolent sores.

**Melancholia Cured by Self-Castration**.—R.—, a laborer, 33 years old, an industrious, honest man, was attacked, after the death of his wife, with deep melancholia, accompanied by frequent hallucinations of sound, which accused him of having caused the death of his consort by excessive sexual indulgence.

A year after he was first attacked, he was transferred to the asylum at Poitiers; there he was quiet and industrious, but suffered very much from his "voices," which threatened him with death by fire, and other tortures. Almost at every visit he implores the physicians to perform "that operation which alone could cure him."

This condition lasted for about six weeks, when, one day during an unguarded moment, he cut his scrotum almost entirely off, with an old blunt knife.

Although very anæmic, the patient survived this enormous mutilation in spite of the collapse and fever which set in. As the wound healed, his physical condition improved, the hallucination entirely disappeared, and with them his insane ideas. Four months after admission, and two-and-a-half months after the infliction of the wound, the patient was discharged entirely well.

**Cremation**.—In a discussion on cremation at a London club a member is credited with the argument, "We earn our living, why should we not urn our dead?"

**Public Hygiene in Paris**.—A laboratory has been attached to the Prefecture of Blice, at Paris, for the purpose of testing wine, brandy, beer, etc., offered for sale.

**American Microscopes**.—Prof. J. Gibbons Hunt, M.D., of Philadelphia, in a recent lecture, stated that, in his opinion (and he is one of the most experienced microscopists in this country), England, which first introduced cheap instruments, sits at the feet of America in respect to both lenses and mechanical appliances. He says it is affectation or stupidity for Americans to send to Europe for microscopes when they can purchase better ones at home.—*The Med. & Surg. Reporter*.



**Ether in Sciatica.**—Dr. C. G. Comegys, *Lancet and Clinic*, July 6, recommends the hypodermic use of common (sulphuric) ether in sciatica. He mentions two cases, one in detail, of this affection cured by this treatment. The injections were superficial, not deep, and though causing severe pain for a time, left no ill effects. He thinks one dose sufficed for a cure in one of his cases, and believes that the remedy will be equally effective in tic douloureux.—*The Jour. of Nervous and Mental Diseases*.

**Permeability of the Entire Alimentary Canal by Injections.**—Dr. Robert Battey, of Rome, Ga., (*Va. Med. Monthly*) finds that rectal injections can, under ordinary circumstances, and by the use of no very great amount of pressure, be made to pass through the entire alimentary canal. He has accomplished this in several patients, and has also demonstrated it upon the cadaver, notwithstanding the common idea of teachers and text-books, that the ileo-cecal valve will not permit matters to pass backwards. The value of such injections in cases of hernia, intussusception, etc., can be easily understood.

**Moles on the Face.**—Dr. Thomas writes to the *Brit. Med. Journal*: "I strongly advise the acid nitrate of mercury in removing moles from the face. The acid should be applied with a splinter of wood, and gently rubbed on the part for several seconds, according to the thickness of the growth. Great care should be taken to prevent the acid from reaching the surrounding skin. There is absolutely no pain attending the application, and the growth gradually shrivels away, and the slough falls off in about a week.

# THE HOSPITAL GAZETTE

AND

## ARCHIVES OF CLINICAL SURGERY.

A WEEKLY JOURNAL OF MEDICINE, SURGERY AND THE COLLATERAL SCIENCES.

EDITED BY

EDWARD J. BERMINGHAM, A.M., M.D., and FREDERICK A. LYONS, A.M., M.D.

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### LECTURES.

#### THE PHYSICS OF SURGERY.

Abstract of a Lecture Delivered Before the Medical Class of the University of Pennsylvania.

BY

D. HAYES AGNEW, M.D., LL.D.

Professor of Surgery and of Clinical Surgery in the Medical School of the University of Pennsylvania.

(Reported for THE HOSPITAL GAZETTE.)

Taking up first the *injuries of the head* I wish to call your attention to the forces which, by reason of its form, are liable to produce fractures of the base of the skull.

The head, as you all know, is anatomically composed of five and surgically of three distinct arches. These surgical arches have three distinct bases. The base of the first is formed by the anterior cerebral fossa, that of the second by the middle cerebral fossa, and that of the third, or posterior, by the cerebellar fossa.

Any force applied to the top of the head follows the curves of one of these arches to its base. While the force may be diffused above, yet as its vibrations extend down these arches towards their base they become more and more concentrated. In the case of a blow falling on the summit of the anterior arch its force is usually concentrated upon the orbital plates. A blow falling on the summit of the middle arch is concentrated upon the petrous portion of the temporal bone, while a blow striking the summit of the third, or posterior arch is liable, under one circumstance, that is when it meets in its descent with the superior semicircular ridges of the occipital bone, to deviate from the general law and to become concentrated upon the middle cerebral fossa, or the petrous part of the temporal bone.

Another point. Let us consider for instance, the middle arch when a blow has been applied to its summit, or sides; it must either break down the arch, or bring together its sides, for an arch of the skull just like any other arch has abutments, and sides, and a keystone.

‘ the sides are brought together all the fibres of the concavity of the

summit of the arch will be brought together and all the fibres of the convexity of the summit will be drawn asunder. The fracture will therefore take place on the convexity, probably near to the summit of the arch. This is just what happens where both a force and a counter-force are applied to the skull. If, on the other hand, the blow is delivered on the summit of one of the arches the sides will be thrust asunder, the fracture taking place on the concavity of the summit of the arch. The fibres on the convexity of the summit will be pressed closer together.

When the blow is concentrated, that is, applied to a very circumscribed portion of the skull, as when the head is struck by a hammer the fracture will usually occur at the point of contact.

In all cases of injury of the skull which are brought to you for treatment, always make it a point to enquire as to the exact spot upon which the blow fell, and the nature of the vulnerating body, and in the majority of cases, you will have some clue in deciding where the fracture is situated, if such exist.

Here is still another matter for your consideration. The spherical form of the cranium not only conduces to its strength, but is instrumental in protecting the brain by deflecting missiles which come in contact with its surface. Take for example a person who with suicidal intent has fired at his head with a pistol. In a great number of instances the ball does not penetrate the bones. The ball has struck the skull at a very slight angle and has been deflected from its course, and the person thus saved from death. In such instances the ball may go almost round the entire circumference of the skull between the bone and muscles of the scalp. This, I say, may occur if the ball deflects in the least upon striking the skull, or the missile may leave the cranium. The angle of incidence is equal to the angle of deflection.

The illustration of this law was shown by allowing ivory balls to fall against the cranium at different angles.—*Rép.*)

Having said this much for fractures of the skull, I now desire to direct your attention to *fractures of the extremities*.

A great many persons suppose, I have no doubt, that the fact of a limb's being fractured at some one point, rather than another, when a force has been applied to it, is determined by some state of weakness of the part, purely accidental. But this is not so. All fractures occur at certain well-fixed points in the long bones. Fractures are caused by direct and indirect forces. A direct force produces a fracture directly under the point where the violence is received, but when a bone is broken by an indirect force, as when one slips and falls on the ice, the fracture will occur at certain points more or less remote. This localization of fractures produced by an indirect force is strictly according to physical law.

Suppose the tibia is fractured. The tibia is not straight. No bone is straight. Why is this so? you will ask. Curved lines conduce to strength and grace of movement. The articulating surfaces of the bones never move in parallel planes. If they did so, all the movements of the body would be stiff and automatic. There are two well-marked curves in the length of the tibia—one at its upper, and one at



its lower third. Indirect fractures of this bone take place either at its lower or at its upper third. It is an exceedingly rare thing to find a fracture of the middle of the tibia. All this is simply because the vibrations are transmitted through the curved lines of the bone, and are decomposed most severely at the summit of the curve. This brings us back to our idea of the old arch in a new aspect.

To bring this fact of *fracturable* points still more prominently before you let me call your attention to the clavicle. All fractures (or nearly all) of the middle of the clavicle are the result of a force directly applied. When the clavicle is submitted to indirect force, force perhaps transmitted from the arm or the shoulder, it will break at the summit of its arches, or curves, *i. e.* at its inner or outer third.

Let me illustrate this point to you by means of an experiment. I have here one of the long bones—the tibia—stood on its end and suspended by strings, and touching it at different parts are two ivory balls. Now notice. When I strike forcibly upon the upper extremity of this bone, the only ball which moves to any great extent is that one which touches the summit of the arch. The other ball is but very slightly affected.

This point which I have thus succeeded in showing you is what occurs always in fractures of the long bones. Other portions of the bone may not be as strong as that part which is fractured, and yet there are few exceptions to the law. Not a single specimen to be found in our museums shows a fracture at the middle of the tibia as a result of indirect force.

Occasionally we find a fracture occurring at the lower third of the tibia and the upper third of the fibula, but these fractures also are in exact accord with a well determined law. They do not occur simultaneously. When the lower third of the tibia has been fractured the limb has of course lost its chief means of support, and the weight of the body, falling entirely on the fibula, it gives way at its weakest point, which happens to be the point above-mentioned, *viz.*: its upper third. This rule, which I have exemplified in the case of the tibia and clavicle, applies just as well to the femur, the humerus, the ulna, and the radius.

This brings me to a consideration of the power operating to *produce fractures*. Let us take, for example, a very common fracture—Colles' fracture of the lower end of the radius. The old explanation of this fracture, that given by Colles himself, is that in falling the hand is forcibly extended, while the first row of the carpal bones is driven up forcibly against the radius, which breaks off.

If this first row of carpal bones were driven up the result ought to be a Barton's and not a Colles' fracture. The true mechanism of this injury is very different from that which Colles imagined it to be. This fracture requires for its explanation an understanding of the principle of the *lever*. Colles' fracture, you will remember, is within one half an inch of the lower end of the radius.

This drawing represents the hand in a condition of extreme extension. The radio-carpal ligament resists this extension and refuses to yield. The first row of carpal bones is made a fulcrum. The bone breaks as

a result of the great resistance of the ligament. If the ligament broke, the bone would not break. I think that this explanation is the true one. The fulcrum, you understand, is between the power and the weight, being formed by the first row of the carpal bones. The radius breaks just above the radio-carpal ligament.

The effect of the "pulley" in causing deformity after fracture, and in preventing fracture, and subluxation, is also very marked.

The peroneus longus muscle from the outer side of the limb passes behind the malleolus over a groove in the cuboid bone, and goes across the foot to the cuneiform bone. This muscle gets its leverage at a joint in the cuboid. When the person falls and turns his foot out, and the internal lateral ligament does not give way, the astragalus becomes the fulcrum. The ligament keeps the bone up tight against the fibula and the bone is thus fractured. The deformity which follows is one of marked eversion of the foot and projection of the ankle, and which is maintained by the peroneus longus acting as a pulley over the groove in the cuboid bone.

The deformity which so often follows the fracture, namely an undue prominence of the internal ankle, and which is a progressive one, results from the failure to recognize the rationale of the displacement. The proper treatment, that by adducting the foot, relaxes the peroneus muscle and is best carried out by means of a splint with a wedge-shaped pad placed on the inside of the foot. Very many cases can be treated in a fracture box, but for a majority of cases the old treatment is the best, as it renders the deformity impossible.

Upward luxations of the humerus are prevented by the power of the pulley, formed by the long tendon of the biceps muscle running over the groove in the humerus. When a person falls on the hand with great violence the coracoid and acromion would be much more frequently broken than they are but that the cord of the biceps keeps the head of the bone down.

No graceful gesture could be made but for this pulley arrangement. In rheumatic arthritis, the tendon may be entirely destroyed, allowing displacements of the head of the bone to take place.

It is very difficult to restore a luxation of the femur after the old method. It requires an enormous display of force on the part of the surgeon and of prostration on the part of the patient. Now we accomplish the reduction in the easiest manner possible, by using the power of the windlass or a sliding fulcrum.

In most cases of luxation of the femur the capsular ligament is torn away except one part which is called the ileo-femoral fasciculus, and which is connected to the surface of the anterior trochanteric line. These fibres still hold on, and in the reduction of the luxation we make use of these fibres. We flex the limb on the thigh and the thigh on the body, and rotate the bone, which process will be found to wind the bone into place.

In reduction by pulling, we have to drag the femur over the ridge of the acetabulum against which it is held by the ileo-femoral ligaments and adductor muscles. All of these obstacles are avoided by calling to our aid the assistance of the windlass.



The luxation of the semi-lunar cartilage is a very annoying displacement. The limb cannot be straightened. A displaced semi-lunar cartilage tends to go back when the leg is flexed. There is consequently always more or less tension upon the coronary ligament, and if it snaps the semi-lunar cartilage falls back.

Why does this occur? The condyles of the femur have two unequal convexities. It is the posterior one of these convexities which thrusts it back. The power obtained by this form of the condyles is that of the "calm."

The luxation outwards of the patella, which is very much the most common, aside from clinical experience, could not be anticipated, as the external condyle is highest on that side. When, however, the relation of the bone to the tendo-patellæ and the tendon of the quadriceps muscle is noticed, this dislocation will be understood at once, as the three are not in a straight line, the direction of the tendon being from without inwards and that of the ligamentum patellæ from within outward, so that a violent contraction of the quadriceps muscle by converging an angle into a straight line, throws the patella outwards.

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### CLINICAL LECTURE.

Delivered at Bellevue Hospital Medical College, New York.

BY  
E. G. JANEWAY, M.D.

Professor of Pathological Anatomy and Histology, Diseases of the Nervous System and Clinical Medicine.

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#### I. HYDRO-PNEUMO-THORAX. II. CHOREA. III. POST PARALYTIC CHOREA.

(Reported For THE HOSPITAL GAZETTE.)

GENTLEMEN:—The first case I show you to-day is one of considerable interest on account of the extreme length of time it has continued, a period of unusual duration in cases of this kind. I first saw her in 1870, and at that time she gave the history of having been sick for six or seven years previously. Her physician had told her that she was suffering from consumption which had gone so far as to give evidence of a cavity in the upper lobe of the right lung. I examined her but could not detect any such condition, merely finding exaggerated breathing in that locality. On examining further, however, I found lower down in the lung, a low percussion sound and amphoric breathing. On applying my ear to the chest and shaking the body at the same time I also got a succussion sound. This then established the diagnosis of hydro-pneumo-thorax of some fourteen or fifteen years duration at the present time.

She says that sometimes her breathing is quite difficult, that she then experiences a severe fit of coughing and expels a large quantity of matter when she feels relieved for some time. On one occasion she passed a large quantity of matter from the bowels.

Let us examine her now to ascertain her present condition. The percussion note in the lower region is flat though the auscultatory signs as I listen through the dress are scarcely appreciable. On



changing the position of the patient and causing her to bend forward I get the amphoric breathing and metallic tinkle. The voice is also amphoric in character, and on shaking, the splashing sound is evident. By thus changing the position of the patient we have caused the pus to gravitate away from the opening in the lung and the air comes through.

This is a case of hydro-pneumo-thorax that probably originated in empyema. I have never seen a case, nor have I seen one recorded, where this condition lasted so long and left the patient in so fair a condition of health. Some time ago I wanted to make an opening into the thorax, but she would not consent. She has taken cod-liver oil, iron and other tonics, and is doing pretty well. Her dyspnoea is not so great and she does not cough up so much matter. She spit up some about two weeks ago but has not passed any more from the bowels. At the time the evacuation occurred there was probably an opening into the bowel which must have been valvular.

#### CHOREA.

This man whose extraordinary movements you now observe tells us that he is about 60 years old and has been sick about four years, during which period he has been gradually getting worse. He has never had rheumatism or gout and has been temperate. Previous to the date of his present trouble he was working in Indiana and had severe attacks of malarial fever. It was when he was getting better from this that the malady appeared.

You observe his marked constant irregular movements and the grimaces on his face. He has a certain amount of control over the movements by the will as he is enabled to steady the glass somewhat when he drinks water. It is quite late in life for an attack of this kind to appear. I lately had a female patient in whom it came on very late in life and was of long duration. She is living now, 73 years of age, and suffering for the last eleven years though the severity has somewhat diminished. In this man, the sensation, as tested by the æsthesiometer is perfect all over the skin and the power in the hands is good. The cause of the disease is somewhat obscure, but it may be secondary to malaria though he tells us he never had a congestive chill. In malaria we get deposits of disintegrated pigment in the spleen and liver and these may be carried to the brain, and cause plugging of the cerebral vessels and chorea may be produced in that way. He has been treated by bromide of potassium on which he has improved somewhat and is enabled to sleep pretty well. The movement is so incessant in some that they cannot obtain sleep, and ulcers are common on the limbs from the constant friction or knocking against objects.

Electricity might be tried in this case, and tonics given freely.

#### POST-PARALYTIC CHOREA.

In this boy, who is 19 years old, you will notice a different kind of movement. He has been affected as long as he can remember, and has been told that it appeared a short time after birth. In this case you notice the movements are entirely limited to one side of

the body. You will notice that the muscles are quite rigid and that both flexors and extensors are constantly contracted. There are also some slight clonic contractions. I straighten out the fingers, and though it requires considerable force you see that they remain so. We have a condition almost amounting to tetanoid contractions of both sets of muscles. To open his fingers he always has to use force. The same condition exists in the legs and toes. The gastrocnemius and soleus exhibit the same rigid contraction. The heel is drawn upwards and so he has to walk on the ball of the foot. Both arms are of the same length.

This condition has been denominated by Charcot "post-paralytic chorea." You can easily notice the difference between the movements of this patient and the previous one. In this case there is rigid contraction with choreiform movements.

These cases, as a rule, follow the hemiplegia due to some surface lesion of the hemispheres. This case is the earliest on record, being congenital, or nearly so. What took place in this instance was probably a surface hemorrhage at birth. This caused irritation and partial destruction of the left hemisphere. I suppose that there were some cerebral changes such as adhesions or indurations on the surface. This condition of the brain not infrequently comes on at birth, especially if the labor be a difficult one.

One of my chief objects in bringing this case before you was that you might contrast these movements with those of the previous patient. His were irregular contractions without the control of the will—there was no rigidity. Here all the muscles are firmly contracted and rigid, and the muscles are well developed.

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## ORIGINAL ARTICLES.

### AN INTERESTING CASE OF PLACENTA ADHERENS.

BY  
G. C. PAOLI, M.D., Chicago, Ill.

September 18, at 12 o'clock, P. M., I was called to North Franklin street to attend a case of obstetrics. On my arrival, I found Mrs. M., a Norwegian by birth, aged 25 years, suffering with labor pains. By diligent examination I found a vertex presentation. The uterus was soft and somewhat dilated. The head had descended into the cavity of the pelvis. Liquor amnii was already discharged an hour before my arrival. The head of the foetus was somewhat large in proportion to the pelvis. After waiting about eight hours with uninterrupted, strong pains, without any further advance of the head, I applied the forceps and extracted a large, healthy child. After waiting about half an hour for the expulsion of the placenta, notwithstanding the repeated contractions and globular shape of the uterus, the placenta did not present itself. I therefore inserted my whole hand into the uterus and found the whole borders of the placenta firmly adhering to the womb, and hemorrhage thereby prevented. After I had exerted myself carefully about a quarter of an hour in endeavor-



ing, if possible, to expel it, I came to the conclusion that to proceed further would be dangerous in a case of such strong, fibrous adhesion. I therefore determined to let nature itself produce its expulsive force, and I was not disappointed, for on the fourth day the whole placenta was expelled. On examination, I found that the central part of the placenta contained considerable pus. The borders were very firm on making an incision. The odor which emanated from the organ was very offensive. During the lapse of time between the expulsion of the child and the expulsion of the placenta, I gave the patient fluid extract of ergot to assist nature in its expulsive force. The fifth day a violent chill came on, with extreme restlessness; the pulse became rapid, the skin dry and burning, the tongue red, but moist, and respiration hurried. As I anticipated, a puerperal septicæmia. I gave the patient the following antiseptic remedies: Benzoate of soda and quinine, beside injecting into the uterus a solution of permanganate of potassa, and after nine days the fever commenced to abate, and the patient is now doing well.

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## HOSPITAL RECORDS.

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### PENNSYLVANIA HOSPITAL, PHILADELPHIA.

Service of THOMAS G. MORTON, M.D.

#### EXCISION OF SUPRA AND INFRA-ORBITAL NERVES FOR THE RELIEF OF BLEPHAROSPASM.

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[Reported for THE HOSPITAL GAZETTE.]

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Dr. Morton first saw this patient some four years ago in consultation with Dr. Ernest Goodman of this city. He is a clergyman by profession, aged fifty-eight years, and comes from Hazleton, Pennsylvania. He had then been annoyed for more than three years with twitching of the eyelids, he was able, however, to continue his professional career until within three or four months of the time at which the above gentleman first saw him when the spasm became much more intense, the involuntary closure of the lids being incessant, unaccompanied, however, by the slightest pain. Just before he came to the city the trouble had become so aggravated that he even required assistance in walking about. Light seemed to have been the exciting cause, for, during the evening, and at night, the twitching had been very much less troublesome. At the time of consultation all the muscles of the face had become involved and the incessant action of the orbicularis palpebrarum had induced a feeling of tension of the brows with great weariness. The patient's general health had been uniformly good. Firm pressure on the supra-orbital nerves exercised a very marked control over the twitching, but did not stop it entirely.

The vision of the two eyes was quite different. In the right eye the vision =  $1\frac{5}{8}$  H. Asm. In the left the vision =  $1\frac{5}{8}$  xx. With a +14 cyl. axis 180° vision =  $1\frac{5}{8}$  xx. The presbyopia required + $\frac{1}{8}$  glass in the left and -  $\frac{1}{14}$  glass +  $\frac{1}{12}$  cyl. in the right, n. p. g.—14 inches.



After etherization Dr. Goodman first excised the right, and then the left supra-orbital nerve. The operation was quite difficult partly from the great depth of the nerve, consequent upon a very thick brow and an unusual amount of adipose tissue.

After an incision along and under the eyebrows the notch was sought, and with the handle of the knife the nerve was gradually exposed and then traced up on the brow. A blunt hook was carried around the nerve at its emergence and it was divided just under the arch of the brow. The diverging filaments were then collected and divided, the main nerve being well drawn out, and so acting as a guide, and one-half an inch of the nerve was removed. The nerve on the other side was then exposed and excised in the same manner as its fellow.

On the fifth day after the operation the wound was found to have united by first intention. Examination with needle-points revealed total anæsthesia over the entire forehead; the line of least sensation extending from the extreme outer portion of the eyebrow on either side directly upward, outward, and backward, until on a line with the upper border of the occipital bone, then across until meeting a similar line drawn from the opposite side. The line of total anæsthesia was traced directly across the upper border of the eyebrows.

On the eighth day after the operation the relief of the blepharospasm was found to have been complete, the strongest light being borne without the least flinching. The results so far had been of the most satisfactory manner. The union of the wounds by first intention was probably due, in the first place to the general good condition of the patient, and also to the fact that immediately after the operation the lids were firmly closed and considerable compression maintained by several turns of a bandage which was not removed for four days. This not only excluded all sight, but insured also absolute rest of the muscles.

The patient came back to the city and was admitted to the hospital on Sept. 25th, 1878. His general health was good. An examination of the urine gave negative results. Sensation had returned to his forehead and scalp and the twitching was just as bad as ever. Light was still an exciting cause. Firm pressure upon the supra-orbital regions controlled the twitching effectively. The return of the symptoms was regarded as an illustration of the very curious fact that the tendency of the nerves when some portion of them has been excised is invariably to reunite even across a considerable gap. This being accomplished generally by the growing together of the cut ends and sometimes by the establishment of a nervous pathway through collateral branches and filaments. This may occur even if the cut ends of the nerve were taken hold of and forced back into the neighboring tissues.

Careful examination of the patient proved that all the muscles of the face were more or less irritable. The ophthalmoscope showed that the vision of one of the eyes was slightly affected, but not too

badly to be remedied by the use of a proper glass. Between Sept. 25 and 28 the patient had been taking gr. viij. of quinia daily.

On September 28, the patient was put under ether, and all the hair shaved off the right eyebrow, as it was proposed to operate tentatively on one side first. The tissues of the eyebrow were then pulled up, and an incision made just over the supra-orbital ridge about one inch and a half in length. The tissues were then carefully dissected away and the supra-orbital notch was reached. Owing to the change in the anatomy of the notch caused by the processes of union of the parts consequent upon the first operation, it was impossible to distinguish and separate any main nerve trunk. It was determined, however, to dissect off and remove a section of tissue, over the site of the nerve, about one-third of an inch in length. After doing this, the edges of the wound were brought together with three sutures, and a firm bandage with a compress applied.

*September 30.* Bandage reapplied. Slight œdema of the lids. No perceptible change in the condition of the parts.

*October 1.* Almost complete anæsthesia of all the parts supplied by the supra-orbital nerve on the right side from the eyebrow to the occipital bone, but little or no diminution in the spasm.

*October 5.* Sutures removed. Swelling and redness of the eyelids diminished. Unguent, zinci oxidi applied.

This operation having failed to afford any marked relief it was determined to cut a piece out of the infra-orbital nerve on the right side.

*October 12.* The patient was again put under ether, a V-shaped incision made under the right eye, and about one-quarter of an inch of the right infra-orbital nerve excised. The wound was closed with sutures, and dressed as before.

*October 17.* Wound healing rapidly. Anæsthesia directly over site of wound but nowhere else. Twitching not much relieved.

*November 11.* The patient has gone home greatly improved.

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## PERISCOPE.

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### ANOTHER CASE OF GASTROSTOMY—AN ARTIFICIAL ŒSOPHAGUS—BY PROF. F. FRENDELENBURG.

In this case constriction of the œsophagus followed a draught of sullphuric acid taken by mistake July, 1877. A month after the accident a bougie was passed, and the operation repeated weekly. After a time he ceased to attend. On December 18 the bougie could not be passed, and he was sent to the hospital. Here, too, it could not be passed. The difficulty of swallowing varied from day to day. Sometimes he could swallow thin soup, or even eggs; at others the stoppage

was complete (he was nourished by enemata of Leube's food), but he grew worse, and at length, March 28, 1878, Trendelenburg operated. The incision was about two inches long, and in an oblique direction, parallel with the under surface of the cartilaginous part of the eighth rib, and about a finger's breadth below it. The abdominal wall was divided in the same way as far as the peritoneum, the rectus being partly cut. All the vessels were secured and then the peritoneum cut. Then the edge of the liver came in view moving with respiration; also a piece of intestine, which might have been colon or stomach. It being impossible to tell by feeling it what it was, the diaphragm was pulled to the front, and then the peculiar appearance of the arteria and vena gastroepiploica settled the doubt. This is one of the most important points in this operation, which, apart from the danger of opening the colon—a not unknown occurrence—is perhaps less difficult than might be supposed. In the case before us the stomach seems to have shrunk back and remained against the spinal column. Its front side was drawn forwards out of the opening and fixed temporarily by two acupuncture needles stuck through it transversely, and resting crosswise on the outer surface of the abdomen. To ensure the peritoneum being included in the sewing up, the cut edge was grasped with pincettes, drawn forward and secured by laying the pincettes over on one side. Fourteen stitches with silk were used; the outer skin, abdominal wall, and peritoneum being all pierced, and the stomach wall taken up as much as possible in its entire thickness; the sewing surrounding a piece of the stomach wall in a circle about five-eighths of an inch in diameter. Then the wall was cut through crosswise, and a drain-pipe inserted. The operation was done antiseptically, little reaction took place, no vomiting, and after the second day small quantities of egg and meat were passed into the stomach. The stitches were removed on the third and fourth days. Singularly enough, after the operation, the stricture seemed less close, and the boy could swallow milk, but this improvement was soon lost, and since May 12 he has been entirely nourished through the artificial opening. After a time a sort of artificial œsophagus was adapted, for to the drain-pipe a longer tube was fitted, through which the boy, having masticated his food, passes it from his mouth. It slips easily along this tube through the opening into the stomach, the boy gently blowing into it to hasten the progress. At the present time he plays about with his companions without great inconvenience, the drain-pipe being stopped with a cork. The fistula has a tendency to dilate under the constant pressure of the plug. When the pipe seems loose, it is, however, only necessary to take it out for a night, the boy sleeping on his back, when the tendency to contract is such that the tube is again tight, and lasts so several days. The artificial gullet, if we may so call it, is obviously a great advance. Though situated outside the body, and only required at meal times, it enables the patient to masticate his food, and then discharge it into the stomach without being disgusted by the sight of it. Also this gullet is better than a syringe in other respects, which will at once suggest themselves. Then, as corking the drain-pipe is found quite sufficient to prevent the escape of



the gastric juice, or even of the odor of the stomach contents, the boy really leads a tolerable life.

This case illustrates several points on which we have previously commented, and suggests new ones for reflection. The origin of the stricture was known, and the case is very different from an obstruction about which there is any doubt. Of course, in malignant disease, the chances of life are altogether different; but even in cancer prolongation of existence might perhaps be gained in this way, and in some forms of even necessarily fatal disease the horrors of slow starvation averted.

An attempt was made to dilate the stricture from below, but was unsuccessful, although the entrance to the œsophagus was easily found. It may, perhaps, be regarded as worth consideration whether the operator has not here indicated a mode which may hereafter be of service, though naturally in the majority of cases calling for an opening, there can be little expectation of ultimate removal of the obstruction. With so small an opening, the difficulty of finding the stomach is a cardinal point, and we have seen how it was overcome. No doubt the diaphragm and the gastro-epiploic vein, which is more distinctly seen than the artery, will furnish the best guide. Trendelenburg favors the small opening in order to use a drain-pipe of about five-sixteenths of an inch. With this it is only necessary to put the tube in the opening and close it with a cork. A large opening requires a special apparatus to close it. The food is reduced by mastication to a coarse pulp, and the boy has found no difficulty with it. Verneuil found that the swollen mucous membrane sets itself against such a tube, and we can therefore understand why it has been found water tight. The wall of the stomach is thick and can bear some strain, but at first there must be danger of the organ being drawn away from the wall unless it is firmly attached. Hence the stitches must be numerous and strong. Verneuil used fourteen stitches of silver wire; Trendelenburg the same number of strong silk. This last case is certainly a surgical triumph, and we are glad to congratulate the operator on a success which encourages us to look forward to others of a similar nature.—*The Doctor*, November, 1878.

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#### METALLOSCOPY AND METALLOTHERAPY.

Professor Eulenburg, of Greifswald *Ueber Metallothérapie, Deutsche Medicinische Wochenschrift*, Nos. 25 and 26, has recently made some researches on this subject, which we lately brought prominently under the notice of our readers. He repeated Regnard's experiments, by bringing a galvanometer into connection with the skin, applying the metal plates, and then causing electric currents to pass between the two. After further experiments on six individuals, he came to the following conclusions. 1. The same plates, applied to various healthy individuals on the same parts of the skin and under similar conditions, appear to be more active in some cases than in others, sometimes having almost no effect. 2. The galvanometer intensity of the metals is by no means alike in all healthy individuals; zinc, more effective

than gold in some persons, is less so in others, and *vice versa*; the proportions even vary at times in the same individuals (owing, perhaps, to some alteration in the dampness of the skin). From these facts it would appear that Regnard over-estimates the importance of the electric currents. Dr. C. Westphal (*Ueber Metalloskopie, Berliner Klin. Wochenschrift*, No. 30, 1878, has also made researches on the same subject, and almost at the same time as Eulenberg. After making himself personally acquainted with Charcot's experiments, and selecting like cases (effeminate, hysterical, hemianæsthetic individuals), he began by using silver coins, and arrived at conclusions similar to those of Charcot—namely, the return of sensibility, sometimes local, sometimes affecting the entire side of the body; and also the "transfer," *i. e.*, with increased sensibility of the anæsthetic spot, a corresponding diminution on the symmetrical spot of the opposite of the body. He then tried the application of iron, magnetic stone, copper covered with varnish or sealing-wax, and bone-markers, and obtained similar, although somewhat weaker results. His assistant, Dr. Adamkiewicz, produced them also by means of mustard-plaster, whilst hot water and the electric brush were used without effect. Westphal says, in conclusion, that one must admit the fact that sensibility is restored by means of metallic plates, but he doubts whether (as Eulenburg says) it takes place through galvanic currents, inasmuch as non-metallic plates produce the same results. He thinks, in opposition to Burq, that no absolute idiosyncrasy for special metals exists, because two metals may be effectual in one and the same patient. The therapeutic result is at the best but limited and temporary.—M. Thennes reported to the Biological Society, at the meeting of October 12th, that he had ascertained in the cases of two hysterical patients that thermal agents are capable of acting in the same way as metals and currents. With applications of ice in one case and of hot water in the other, the hemianæsthesia, achromatopsy, and contraction disappeared. The editor of the *Progrès Médical* adds in a note that similar results were obtained by the use of ice last winter by M. M. Bourneville and Regnard. —*British Med. Jour.*

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A CASE OF SUPRA-PUBIC INCISION INTO THE BLADDER FOR THE RELIEF OF TRAUMATIC STRICTURE OF THE URETHRA CAUSED BY COMPOUND FRACTURE OF THE PELVIS. BY MR. H. G. HOWSE, *The Doctor*, Nov., 1878.

Alf. B., æt. 22, was admitted into Guy's Hospital on Sept. 18th, 1877. Seventeen months before admission he had sustained a very severe compound fracture of the right side of the pelvis, from a large piece of stone falling upon it. His left ankle-joint was dislocated at the same time, and the urethra ruptured, probably by the fractured ischium for the wound through the skin was at the junction of the perinæum and right thigh. He was taken at once to a provincial hospital, where the dislocation was reduced, and the limb put in splinters. Catheters were at first passed, but they were not continued; and subsequently it was found impossible to introduce any. His constitutional



state, which at first was extremely bad, gradually improved, and at the end of seven months he was discharged from hospital for change of air. At this time he was passing the bulk of his water, with great straining, from the wound, and from two abscess-sinuses in the groin. A little dripped from the penis. Repeated attempts at catheterism had entirely failed. After two months' stay at home he was re-admitted to the same hospital. The attempts at catheterism were now repeated, both from the penis and from the sinuses; and on one occasion a catheter was introduced from the wound into the bladder. A week later perineal section was performed with this catheter as a guide, and a No. 9 gum-elastic catheter was introduced into the bladder from the median line of the perinæum. This was continued in for many weeks; but at last, in the necessary changes, it was found impossible to introduce instruments of an equal size, so that by degrees smaller and smaller sizes were used, until finally none at all could be introduced. After six months' stay in hospital he went home in much the same state. Attempts were then made at home, during two months, to pass instruments, and once he took chloroform; but this failing, he was sent up to Guy's. During the first few weeks after admission various operative procedures were adopted, with a view of finding the end of the vertical portion of the urethra or providing the patient with an easy mode of exit for the urine. These may be summed up thus—1. The sinuses were carefully slit up and explored to see if they could be traced into the urethra. 2. A "Cock's" operation was performed, in order to open a way into the bladder through the portable portion of the urethra. This resulted in showing that the urethra was not in its normal position, probably from the contraction of the dense mass of cicatricial tissue, which occupied the lower aperture of the pelvis. The operation therefore failed. 3. Cystotomy was performed from the perinæum through the prostate. This operation gave so much relief to the patient, as furnishing him with an easy mode of exit for the urine, that it was determined to try and connect the new prostatic passage with the penile portion of the urethra. This was accomplished toward the end of December, and by the beginning of April the new passage in its entire length appeared to be pretty well established. A sharp attack of cystitis, produced by the patient taking exercise with a somewhat stiff gum-elastic catheter in him, here interrupted his convalescence for some time; and after this had disappeared it was found that when he attempted to pass water without the catheter, it would *begin* to flow through the new passage, and then would suddenly stop altogether, just as if a calculus had fallen against and plugged the new aperture. The reason of this appeared to be that the *cul-de-sac* of the old prostatic urethra ran down by the side of, and close to, the new passage; and that when micturition took place the urine entered and filled the old *cul-de-sac*, as a bag; and this, in its distended state, pressed on and obliterated the new passages. Hence, to complete the cure it would be necessary in some way to utilize the old *cul-de-sac* of the prostatic urethra. With this object the following operation was resolved on:—On June 25th the bladder was washed out with



thymol solution, and then hyper-distended with some of the same fluid. A supra-pubic incision was then made, and the surface of the bladder exposed. One or two double sutures were then passed into its muscular coat, on either side of the intended puncture. On the puncture being made the thymol solution welled out freely, and was recognized by its smell. A large curved sound was then passed into the viscus through the puncture, down to the back of the bladder, and thence into the prostatic urethra, where it was arrested by the *cul-de-sac*. This sound was then given into the assistant's hands to hold steady, and the patient put into the lithotomy position. The point of the sound could then be felt from the rectum, in spite of the dense cicatricial tissues by which it was surrounded, and it was seen to deviate very considerably to the right side, hence accounting for the failure in finding it by "Cock's operation." Incisions from the perinæum readily reached it, and a director was passed into the bladder on this side. On this director, subsequently, a No. 12 catheter was passed into the bladder. The large sound was then removed from the hypogastric incision, and the wound in the bladder closed by carrying the sutures across the incision, threading them in, as for a cleft palate operation. The external skin wound was left open to granulate up. No constitutional disturbance followed this operation, which was performed under the carbolic spray in all its details, though recognizedly it was only possible to keep the anterior wound *entirely* antiseptic. No escape of urine ever took place from the hypogastric incision. A month after the operation a catheter was passed the whole length of the urethra into the bladder, and the external perinæal wound left to close as far as it would. Early in September the perinæal wound was so far closed that the catheter was left out at intervals, and the patient showed that he could pass urine down the whole length of the urethra in a good stream without any of the previous obstruction. At the present time the patient remains in good health, generally passing the catheter for himself, by preference, about twice in the twenty-four hours, to avoid any possible future contraction in the new portion of the perinæal urethra. It is urged that this supra-pubic operation, though admittedly inferior to "Cock's operation" (for opening the urethra at the apex of the prostate), as far as risk to the patient, facility of performance, and general success in results are concerned, may yet be of the greatest value where the "Cock" fails in success,—as, indeed, is shown by this case. Such failure can only be due when properly performed, to some displacement of the urethra from its normal position. In the present case this arose from the contraction of a vast amount of cicatricial tissue produced by a very bad compound fracture of the pelvis, but it may be also due to the pressure of tumours, or to unsymmetrical suppurations about the neck of the bladder, as in some cases of old and repeated extravasations of urine. In the present case the operation was rendered *entirely* antiseptic by the washing out and injection of the bladder with thymol solution first, prior to the performance of the operation. It is pointed out that even in cases where the bladder is contracted down behind the pubis, and filled with stinking ammonia-

cal urine, this may probably be done with success by the use of the aspiratory trocar and canula after the skin incisions have been made, but before the bladder is incised. In this way, by alternately pumping in and sucking out fluid, the bladder may be thoroughly washed out, and finally hyper-distended with antiseptic fluid, whereby the subsequent steps of the operation are much facilitated. The method of passing the sutures prior to opening the bladder enabled the viscus to be well held up against the external wound in spite of its collapse after opening. And subsequently they enabled the wound in the bladder to be rapidly and completely closed, whereby all risk of subsequent infiltration of urine was avoided.

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#### WEIR ON THYMOL DRESSING.

In the *Ohio Medical and Surgical Journal* for June 1878, Dr. R. F. Weir gives the results of its use at the Roosevelt and New York Hospital, as follows: "The thymol dressing has now been tested in twenty-five cases, as follows: Amputations, (thigh and leg), 5; compound fractures, (thigh and leg), 3; lacerated wounds (leg and foot), 6; abscesses, 3; removal of bone for necrosis, 3; lumbo-colotomy, 1; amputation fingers, 3; removal tumor, 1—with the result of eleven successes and fourteen failures. By failures is meant that an aseptic condition was not preserved. The explanation given for such a failure, when first resorting to Lister's method—*i. e.*, a too limited experience in its application—does not hold in connection with Ranke dressing, for the house-staff were thoroughly trained in its use, and every detail was carefully carried out. The failures were not only characterized by the usual appearance of odor, etc., but even in the successful cases, that is where the wounds were progressing satisfactorily, it was often noticed that there was greater elevation of the temperature and more frequent appearance of acute œdema than are met with in the carbolyzed dressings.

"The mackintosh used in lieu of the gutta-percha tissue or parchment-paper, suggested by Ranke, suffered from the action of the thymol, and soon became unfit for use, and oftentimes a greenish color was imparted to the skin next the wound.

"A further test would have been sought for before publication, but these results have been so decidedly confirmed by the reports received this week from the surgeons assembled at the recent meeting of the Surgical Congress, at Berlin, that it was not deemed worth while to delay further in order to present an increased number of cases. In the congress, held in April of this year, Dr. Kuster, of Berlin, Olschhausen, of Halle, Schede and Langenbeck, of Berlin, spoke of the uncertain results obtained by thymol. Bardeleben (Berlin) objected to it, not only because it did not possess the antiseptic qualities of the five-per-cent. carbolic acid and solution, but also because the sweetish odor of the thymol produced headache and attracted swarms of flies.

"Aside from these main considerations it is to be regretted, on account of the surgeon himself, that thymol is not likely to replace carbolic acid, for the stained nails and roughened skin are the necessary



concomitants of the use of Lister's dressing, only mitigated slightly, as I have found, by washing the hands freely with the juniper-tar soap.

"Perhaps the yet untried carvol (from carroway seed) may prove the coming antiseptic."—*New York Med. Journal*.

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### NEWS ITEMS AND NOTES.

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**A House Physician and Surgeon Wanted** in a hospital situated in a city of 80,000 inhabitants. Term of service is one year, during which time the appointee has the services of a medical student as an assistant. Application, from graduates in medicine only, may be made to Dr. D. M. Stimson, No. 9 East 13th street, between 9 and 11 o'clock, A. M.

**American Drugs at the Paris Exposition.**—McKesson & Robbins received the highest medal awarded for display of indigenous crude drugs and essential oils. As they had already received the highest medals at Vienna and Philadelphia for their Gelatine-Coated Pills, they thought best not to exhibit them again at Paris, since their very extensive commercial relations with Europe led them to desire representation there, as exporters, being so well known in America as importers and wholesale jobbers of drugs and manufacturing chemists.

**Supra-pubic Lithotomy.**—C. W. Dulles, M.D., Philadelphia, in a recent article (*N. Y. Med. Jour.* Sept.) analyzes the claims of this operation for stone, and concludes with the belief that it will some day be the one most generally employed. The two great dangers, peritonitis and urinary infiltration, are shown, both by the authorities and by the statistics, to be rarely encountered. It is true, "the peritoneum may be encountered; it should be looked for, and, if met, gently pressed out of the way." The bladder should not be distended with an injection. "The operation in its simplest form is conducted as follows: The skin just above the pubes and over the linea alba is incised to the extent of a few inches, and an easy dissection brings one down to the region of the bladder. This is now pushed up on the end of a sound, passed through the urethra, and secured with a tenaculum. It is then incised to a proper extent and the calculus removed with fingers or forceps. After which the wound should be covered with a light absorbent and stimulating dressing, the patient put to bed, and the subsequent treatment conducted on general principles."

The method of raising the bladder on the sound should be practiced first, if possible on the cadaver. Theoretically, this operation affords the most direct, easy, simple and safe access to the bladder, and the author had no doubt that, if performed as generally as the perineal section, the results would be far more satisfactory.

**Hemorrhoids.**—Mr. Allingham, of London, relies on "the ligature in all large, very vascular hemorrhoids, when properly and dexterously applied." In small "villous or raspberry-looking" piles, Paquelin's thermo-cautery is suitable. He has used the ligature in nearly eleven



hundred cases with no death, while in about two hundred and twenty cases where the actual cautery was employed, there were two deaths from pyæmia.

**Phymosis.**—Dr. Hue, of Rouen, operates by passing a needle through the dorsal surface close to the base of the gland, and tying the portion of the skin in front of the puncture with an elastic ligature, which cuts through in three or four days. The process is not painful and the patients can, if necessary, continue their usual vocations.—*Le Progres Medical*.—*Med. Rec.*

**Views of the New Orleans Profession Upon Yellow Fever.**—At a meeting of the New Orleans Parish Medical Association, held August 12, a series of questions was submitted, and the sense of the society was expressed by a viva voce vote. We quote from the *New Orleans Med. & Surg. Jour.* for September: Is yellow fever a specific disease, in the strictest sense of the word? Decided—Yes, 16; doubtful, 2; reserved opinion, 4. Is it convertible with other specific disease? Decided—No, 19; yes, 3. Are the following facts sufficient to prove that the cause of yellow fever is an organism, to-wit: (a) Yellow fever prevails only under climatic conditions which are favorable to the growth and perpetuation of organism. (b) Nothing is capable of reducing itself except an organism, and the steady increase of yellow fever epidemics indicates successive generations of crops of the poison. Decided—Yes, 17; reserved opinion, 3; no, 1. Do we possess any remedy which is antidotal to yellow fever, or which by catalytic action cures? Decided—No, 19; doubtful, 2; yes, 1. Does quinine cure yellow fever? Decided—No, 18; doubtful, 4. Does quinine abate the temperature of the paroxysm? Decided—Yes, 3; no, 7; doubtful, 12. Does quinine by any influence over vaso-motor nerves relieve or avert congestions, and promote perspirations? Decided—Yes, 10; doubtful, 12.—*Toledo Med. & Surg. Jour.*

**Nitrate of Silver as a Uterine Caustic**, is thus spoken of by Dr. T. Addis Emmet: "We have no remedy which acts with more promptness than the nitrate of silver, which applied to the mucous membrane of the cervix, yet it has done more damage than any other. From being in common use, it is the more dangerous; for its repeated action will ultimately destroy the mucous follicles, harden the tissues, and close the os, as certainly as the application of the actual cautery."

**Good Effects of Ligation of the Thighs in Obstinate Epistaxis.**—M. Blondeau reports the case of a gouty subject, who had an attack of epistaxis, in which nearly two quarts of blood were lost, and which ceased only on the occurrence of syncope. Eight days later a second attack occurred. Injections of cold water containing perchloride of iron were first tried in vain, and a ligature was then applied tightly to the middle of the thigh. The hemorrhage ceased almost immediately, but reappeared on the following day shortly after the ligature had been removed. The ligature was again applied with equal success, but its removal was again followed by recurrence of

the epistaxis. The treatment was, however, persevered in, and finally, after several days, the hemorrhage ceased completely.

**A Fair Inference.**—A lady's-maid visiting with her mistress at the residence of a celebrated surgeon, then deceased, noticed the classic invitation, "salve" upon the hall floor, and in the parlor a picture of Cleopatra applying the asp to her beautiful bosom. Whereupon, with that quick but not always correct woman's intuition about which we hear so much now-a-days, she confidently, but in all innocence inquired, "Dr.— was a physician, was he not? I felt sure he was when I saw *salve* on the entry floor, and then that poor thing in the parlor, with her broken breast and the leech in her hand. I knew he must have been a doctor."

**Treatment of Wounds of the Superficial Palmar Arch by Acupressure.**—Mr. Bellamy believes that this simple method of treatment for serious wounds of vessels is not practised as frequently as it might be. He gives a case of a lad who divided the ulnar artery in the hand with a knife. He applied an Esmarch's bandage, but hemorrhage soon recurred. He then plugged the wound and bound the hand firmly to a dorsal splint, but without effect. He returned bleeding as profusely as before. Mr. Bellamy then determined to try acupressure, and taking a stout harelip pin, passed it through the tissues about half an inch from the edge of the cut, under the artery, and out again to a corresponding distance the other side of the wound, and placed the limb again upon the splint. This had the effect of entirely stopping the bleeding; the needle was taken away on the fourth day, and the entire wound had closed by the end of the week.—*Lancet* Sept. 21, 1878.

**Treatment of Sanguineous Cerebral Apoplexy by Hypodermic Injection of Ergotine.**—Dr. N. S. Foster, observes that the utility of the subcutaneous injection for the exhibition of the active principle of ergot, on account of the rapidity and comparative certainty of its action, have been most successfully demonstrated in cases of post-partum hemorrhage. From the explanation given of its inducing contraction of the smaller arteries and from the facility of its administration, especially in cases where swallowing is at least very difficult, he was led to use it in cases of cerebral apoplexy and also of hæmoptysis. He records two cases in each of which the patient was attacked with symptoms characteristic of an apoplectic lesion, the coma gradually deepening. On the injections of ergotine into the arm the comatose state became stationary and the grave symptoms rapidly passed off.—*Lancet*, Sept. 21, 1878.

**Application of the Shellac Cloth or Poroplastic Spinal Jacket.**—Mr. J. C. Hutchinson, of the Brooklyn Orthopædic Infirmary recommends the following material and mode of application in cases of spinal caries, and of diseases of the hips and knee-joints. The felt, or, as it is called, shellac cloth, should be of a somewhat heavier kind than that employed by hatters. Then the patient, being suspended in a Sayre's swing, the following measurements should be taken:—



1. From a point one and a half inches to one side of the linea alba, on a line with the anterior superior spinous process of the ilium, around the back of the pelvis, to a corresponding point on the opposite side. 2. From a point one and a half inches to one side of the middle of the sternum around the thorax, to a corresponding point on the opposite side. These measurements will leave a space in front for lacing. 3. From the seventh cervical vertebra to the top of the sacrum; slits are cut in the lower edge of the splint an inch long and two or three inches apart, so as to allow the lower part to mould itself more accurately to the pelvis, and thus get a better base of support. It should also be cut away under the arms. The chest is now covered by a well-fitting woolen shirt or flannel bandage, the patient being suspended. The felt, made pliable by dry heat or steaming, or by immersion in very hot water, is quickly applied, and covered with a bandage from below upward very firmly, so as to mould it to all the inequalities of the surface. The splint almost immediately regains its inflexibility. It may then be removed, trimmed up, and holes punched along the front edge and reapplied. Two brace-straps may be attached to the top edge of the splint, which cross over the shoulders and buckle in front. The splint may be made more comfortable in hot weather by perforating here and there with a punch. The splint for a child weighs only eight to twelve ounces, very much lighter than a plaster of Paris jacket, is comfortable, more cleanly, and more easily applied, while it fulfils all indications.—*Lancet*, Aug. 31, 1878.

*Damiana Turnera Aphrodisiaca*.—Dr. Summerlin of Sunhill, Ga., states that having seen this drug recommended for its aphrodisiac virtues, he determined to give it a trial in the case of a patient, aged twenty-seven, who applied to him for treatment. The patient stated that a few years previously his right testicle became inflamed, compelling him to remain at home for several days. After the swelling left, the testes became atrophied and tender to the touch. He had previously practised onanism. The sexual desire had nearly left him. On examination the left testis was found to be soft and very small, the other normal. He was placed upon the usual treatment—nourishing food, nux-vomica, iron, and cantharides; but he did not appear to improve. He was then ordered to take one drachm of fluid extract of damiana three times a day. In a short time the testis began to enlarge and lose its sensitiveness. In the course of a month it had regained its normal size, and its functional activity was restored.—*Vagina Medical Monthly*.

**A Physician's Office To Let.**—Handsome Offices (two rooms), with hot and cold water, gas, &c. Has been occupied by a physician for 3 years past. Rent very reasonable to a good party. Inquire on premises, 102 West 49th St., between 8 and 10 o'clock A. M.



# THE HOSPITAL GAZETTE

AND

## ARCHIVES OF CLINICAL SURGERY.

A WEEKLY JOURNAL OF MEDICINE, SURGERY AND THE COLLATERAL SCIENCES.

EDITED BY

EDWARD J. BERMINGHAM, A.M., M.D., and FREDERICK A. LYONS, A.M., M.D.

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### LECTURES.

#### THE INTRA-VENOUS INJECTION OF MILK: FOUR CASES WITH A DESCRIPTION OF THE APPARATUS EMPLOYED.

##### A CLINICAL LECTURE.

BY

CHARLES T. HUNTER, M.D.,

Demonstrator of Surgery in the University of Penn.

CASE I.—C. D., æt. 32, was admitted to the University Hospital with extreme anæmia and intense spinal irritability, but without any organic disease. These conditions were of long standing, and had been induced by a remarkable series of depressing influences. The condition was further aggravated by the habit of using daily large quantities of opium. She was treated assiduously for several months without any effect. Rest, generous diet, large doses of the various forms of iron, gradual withdrawal of morphia, were persistently used, but the anæmia remained equally intense, debility was extreme, and the nervous phenomena were as marked as ever.

At the invitation of Dr. William Pepper, who had charge of the case, I introduced  $\frac{1}{2}$  v of milk into the right median basilic vein on June 20th, 1878. The cow was brought into the basement of the hospital, and the patient was placed in a room close by, so that the milk should be perfectly fresh. An hour previous to the operation she took twenty grains of quinia, so as, if possible, to guard against a chill. As soon as the milk began to enter the circulation, violent capillary congestion of the face and surface of the body appeared. The eyes were injected and prominent, the lips turgid, and the whole expression wild and alarming. The respiration was labored, and an intense sense of suffocation was felt, the patient clutching at her throat in her distress. While these symptoms were so severe, the funnel was lowered and the flow of milk arrested for a few seconds, when, as she became easier, it was resumed. Eighteen minutes after the operation there was a sudden out-break of urticaria, the wheals being large, prominent and pale reddish. They disappeared in a few

minutes, but ten minutes later were followed by a second eruption of the same kind and of equally short duration. The changes in the pulse and temperature were carefully noted. At the time of the operation the pulse was 108, and by the time the milk began to flow in, it had run up to 120 from excitement. It then quickly fell to 108 during the entrance of the milk. But, in about five minutes after the operation, violent excitement of the circulation returned, the pulse ran up to 150 and then soon fell again, being 128 when the urticaria appeared, eighteen minutes after the operation. In twenty minutes more it had fallen to 92, at which time a severe chill began. For several hours afterwards it remained at 95. The temperature did not vary during the operation, but when, forty minutes afterwards, the chill occurred, it rose pretty quickly to 103° F, and then slowly fell during the next six hours.

The patient passed a comfortable night, and was in her normal state on the following day. The urine contained neither albumen nor sugar: sp. gr., 1020.

This operation was not followed by any decided improvement in her general condition, and one week later it was decided to repeat it. Previous to the operation she took twenty grains of quinia, so as to prevent the occurrence of a serious chill. She was in an exceedingly nervous condition. A vein was exposed in the left arm and an ounce of milk thrown into the circulation. The entrance of the first drachm caused a great deal of flushing of the face and capillary congestion of all the body. This was followed by a great deal of pain about her head, so that it was thought best not to allow any more milk to flow in. After the milk ceased to flow she had great pain about her uterus, with cramps about the whole pelvic organs, resulting in an immediate premature appearance of her menstrual flux. The quantity of quinia that she had taken succeeded in a measure in keeping down her temperature. She had two attacks of urticaria but no decided chill. No albumen was passed in the urine after the operation. She complained of much pain in her head during the rest of the day.

She passed a comfortable night and on the morning of the day following, June 28th, she felt somewhat better. She looked, however, very puffy about the eyes. On June 29th she felt much stronger and was able to sit up.

During the following three weeks her condition seemed to be improving slowly, but on July 17th it was decided to repeat the operation of transfusion. The milk was procured as on the former occasion. About six ounces were slowly thrown into the circulation, with exactly the same train of symptoms as on the former occasion, causing violent congestion of the capillaries and of the uterus, bringing on the menstrual flux, intense pain in the head, and in three-quarters of an hour a chill and an increase of temperature. This was lowered by quinia. There was also nausea and vomiting. On the following day the patient felt easier, but had much pain in her head. In the course of a few days she began to present decided though gradual improvement. She gained in color and in strength, was able to take mor

nourishment, and slowly to diminish the daily amount of morphia. From this time her improvement progressed very much more satisfactorily than before.

CASE II.—A sailor, æt. 33. Suffered with intense progressive anæmia, attended with marked bronzing of the face, extreme muscular debility, palpitation of the heart, and occasional, apparently causeless attacks of vomiting. Repeated thorough examination failed to discover the existence of any organic disease. There was no albuminuria. Marked remissions in the severity of the symptoms recurred. During one of these remissions he left the University Hospital, Dec., 1877, to attempt to do light work. He was re-admitted to the hospital, May 6th, 1878, in a state of extreme debility, and suffering with diarrhœa. A microscopic examination of his blood by Dr. J. G. Richardson, gave only 1,112,500 red globules to the cubic millimetre being but little over twenty-five per cent. of the normal proportion. The proportion of white corpuscles was not increased, perhaps even somewhat reduced, being one to six hundred and forty-three.

Despite absolute rest, carefully regulated diet, and the use of opium and various astringents, attacks of diarrhœa recurred. He lost flesh and became even more anæmic. There was a soft hæmic murmur over the base of the heart, along the pulmonary artery and in the veins of the neck. The intra-venous injection of milk was decided upon and on June 15th, f  $\frac{3}{4}$  vj were injected by me into the left median basilic vein. The first effect was a marked flushing of the face, with a feeling as though the head would burst. The stomach rejected its contents, and there was a strong desire to defecate. There was not any great sense of respiratory embarrassment.

The milk was injected at 12.35 P. M. with a temperature of  $99^{\frac{2}{5}}^{\circ}$  and a pulse of 104. At 12.40 the pulse was 84 and the temperature  $99^{\frac{3}{5}}^{\circ}$ . At 12.45 temperature the same, pulse 116. At 1 P. M. temperature  $98^{\frac{1}{2}}^{\circ}$ , pulse 120, and fuller and stronger. At 1.15 the pulse was 130 and the temperature  $98^{\frac{1}{2}}^{\circ}$ . At 1.20 and 1.30 the temperature was  $98^{\frac{1}{2}}^{\circ}$  and the pulse 116. Beginning to feel chilly, hot bottles were applied to the patient's side and ten grains of quinia and one-quarter of a grain of morphia administered. At 1.40 he had a decided chill, which lasted for twenty minutes, with a temperature of  $99^{\frac{2}{5}}^{\circ}$  and a pulse of 136. At 2 P. M. he felt more comfortable. His temperature was  $100^{\circ}$  and his pulse 130. At 2.10 he was dozing, pulse 123. At 2.15 he felt weak and thirsty and his temperature ran up to  $101^{\frac{1}{5}}^{\circ}$ , his pulse falling to 114. At half past two his temperature was  $101^{\circ}$  and his pulse 110. At 2.50, his pulse remaining the same his temperature had run up to  $102^{\frac{3}{5}}^{\circ}$ . At 3.05 his temperature was  $103^{\circ}$ . Ten grains of quinia were administered. At 3.35 temperature  $102^{\frac{2}{5}}^{\circ}$ , pulse 104. As he complained of much pain in the left arm and hand gr.  $\frac{1}{4}$  of morphia was given.



For the remainder of the day the record of the temperature and pulse was as follows:

<i>Time.</i>	<i>Temp.</i>	<i>Pulse.</i>
4.05	101 $\frac{4}{5}$ °	108
4.35	101 $\frac{4}{5}$ °	96 stronger.
5.00 sweating.	101 $\frac{1}{5}$ °	94
6.00	100 $\frac{4}{5}$ °	98 more volume.
7.00	100 $\frac{1}{5}$ °	96
8.00	100 $\frac{2}{5}$ °	94 much fuller.
9.00	"	"

The patient passed a comfortable night, slept without any additional narcotic and felt much stronger on the following morning. His temperature was 99°, and his pulse 98. The urine was not albuminous. During the next few days he seemed decidedly stronger than he had been, and expressed himself as feeling better. He was able to be out of bed and to walk about a little, and there was apparently a slight improvement in the bloodless state of the skin and mucous membranes.

On June 20th I injected, at Dr. Pepper's request, f  $\frac{7}{8}$  viij of milk into the right median basilic vein. One hour previous to the operation, the patient took twenty grains of quinia to guard against a chill. After the canula was inserted, the milk was allowed to flow very slowly. This was at 11.20 A. M., the pulse being 135, and small and weak. At the end of the first minute the pulse had fallen to 128. At the end of the third minute it was 112. At the end of the fifth minute the pulse was 114, and much stronger, and the temperature 98 $\frac{3}{4}$ °. The operation lasted five minutes. The chill began at 1 P. M.; the temperature being 102 $\frac{3}{4}$ °—103°. After taking ten grains of quinia the temperature began to fall. He passed an easy night.

On the following day he felt much stronger. The urine was examined and found to contain large quantities of albumen, which disappeared on the second day. On June 25th, the man presented a puffy appearance about the face and under the eyes, but felt quite strong.

On June 27th, I, for the third time, injected f  $\frac{7}{8}$  vj. of fresh, warm milk into the median cephalic vein. The operation was attended with the same marked capillary congestion, sense of oppression and of distension in the head and chest, nausea and vomiting, as before, and was followed by a decided chill, lasting twenty-five minutes, for about fifteen of which he was perfectly blind, not being able to distinguish the slightest object. This gradually diminished with the chill. After the chill, the temperature began to rise from 101 $\frac{1}{2}$ °, and reached its maximum, 103 $\frac{1}{2}$ °, about three hours after the operation. It then began to fall, and in three hours more was down to 101 $\frac{1}{2}$ °. He complained of being very nervous, and of having a great deal of pain about his head.

On the day following the operation the urine was examined, and was found to contain a great deal of albumen and many phosphates. His temperature did not fall as quickly as after the former operations. In the morning it was 102°, and gradually rose to 104° in the evening. The pulse was 120. The patient was put upon ten grains of salicylic

acid every three hours. On June 29th he felt somewhat easier. During the past twenty-four hours the patient passed ten pints of urine highly charged with albumen. He complained of much pain about the base of both lungs, and in his right elbow.

On June 30th, the quantity of urine had diminished to three pints in the twenty-four hours, and contained still a small amount of albumen. No tube-casts were found. The temperature had a tendency to run high, but was controlled by salicylic acid. There was impaired expansion and resonance over the lower lobe of the right lung. There were also fine crackling rales of œdema over the lower parts of both lungs. (No jaundice occurred after either operation.) On the following day, July 1st, the patient complained of a great deal of pain about the base of the lungs, and sinking steadily all day, expired about seven o'clock, P. M.

At the *autopsy* the brain could not be examined. The heart was flabby, and its walls had undergone marked fatty degeneration. The lungs were adherent throughout. There were several small cheesy nodules at the right apex. No spots of infarction or metastatic abscesses were found, but the lower lobes were intensely congested and œdematous. There was a small collection of pus in the right elbow-joint. The walls of the stomach and intestines were thin, and the mucous membrane was especially thin, but without ulceration. The liver was somewhat fatty. The spleen and pancreas were normal. The supra-renal capsules were converted into mere sacs, but had not undergone the characteristic changes of Addison's disease. The kidneys presented a positive but slight degree of thickening of the interstitial connective tissue, especially around the malpighian bodies. The semi-lunar ganglia of the abdominal sympathetic nerve were normal. The marrow of the long bones presented distinct but not extreme alterations of the character found in medullary anæmias. (The notes of the above cases were drawn up for Dr. William Pepper by his resident at the University Hospital, and were read by him at the meeting of the Philadelphia County Medical Society on October 9th, 1878, in connection with a paper on "The Intra-venous injection of Milk in Functional and Organic Anæmias.")

CASE III. · H. A. B., æt. 34; a case of typhoid fever in its fifty-sixth day. The patient had had repeated hemorrhages from the bowels, which had almost reduced him to a moribund condition. Drs. Elwood Wilson and James H. Hutchinson, who were in attendance, determined to have fresh milk injected into the patient's veins, as a *dernier ressort*. At 8.30 P. M., on Friday, August 16th, 1878, with the assistance of Dr. I. G. Allen, I threw  $\frac{1}{2}$  ivss of fresh goat's milk into the right median cephalic vein. In consequence of the collapsed condition of the superficial veins we were obliged to make an incision in the integument over the course of the vein, the usual venous hue, or line, not being present as a guide to the position of the vessel.

Very soon after the operation marked signs of improvement were manifest. The pulse became sufficiently strong and full to enable me to count it at the wrist. The skin grew warmer and dry; the breathing less hurried and more regular.



On the morning of the day following I threw f  $\bar{\text{v}}$  of goat's milk into the right superficial radial vein. No unpleasant effects followed the second operation, and improvement progressed slowly. Mr. B. became conscious, and fully understood what was being done for him.

On the 20th of August the patient's morning temperature ran up to  $103^{\circ}$ , and on the next day it reached  $105\frac{1}{2}^{\circ}$  F. The pulse being 124. The patient then began to fall into a semi-comatose state from which it was impossible to rouse him.

During that night the patient had several evacuations from the bowels which contained a considerable amount of fresh blood. At about ten o'clock on the morning of the 21st of August, f  $\bar{\text{v}}$  of goat's milk were thrown into Mr. B.'s median basilic vein without any apparent effect, as he died soon after the operation. (None of the usual physiological effects of the intra-venous injection of milk had been present in this case.)

A *post mortem* examination revealed the presence of extensive ulcerations extending from the lower part of the small intestine all the way down to the middle of the rectum. Perforation had not occurred at any point.

CASE IV. Was that of a married lady, 56 years of age, profoundly prostrated by an attack of typhoid fever. There were no complications. I was called in to see her at eleven o'clock at night, and found her in a moribund condition. I proceeded at once to throw f  $\bar{\text{v}}$  of fresh goat's milk into the circulation through the right median cephalic vein. Two hours after the operation the patient had a violent chill from which she did not rally, and died at 9 A. M., on the morning following. None of the immediate physiological effects of milk injection manifested themselves in this case.

In commenting briefly upon these four cases it will be noticed that in *Case 1*, of extreme and long standing anemia, not connected with organic disease, but in which all other means of treatment had proved of no avail, the intra-venous injection of milk thrice repeated was certainly productive of much benefit.

In *Case 2*, one of progressive organic anemia, the intra-venous injection of milk effected no relief to speak of. There seemed, indeed, to be some temporary improvement after the first operation, but this was only slight, while after the second operation the most serious symptoms ensued. There is, in fact, to my mind, no doubt but that the operation hastened death.

In the third case, operative interference was attempted entirely too late in the course of the disease. The results of the first three injections were admirable, but nothing could rally the patient at the last. In *Case IV* milk was injected simply as an experimental *dernier ressort*.

Having been called upon several times during the past six or seven years to perform transfusion of blood and intra-venous injection of milk, I very naturally have given considerable attention to the various apparatuses used in these operations.

The instruments generally used in the former operation have been



minutely described, from time to time, by their inventors, and by those who have had occasion to make use of them; hence that portion of the profession who are specially interested in transfusion, mediate or immediate, are sufficiently familiar with the means employed by operators. In regard to intra-venous injection of milk, which is a comparatively recent operation, very little has been said concerning the apparatus that appears to be best adapted for conveying the fluid safely into the blood vessels.

Of course the syringe that is commonly used in mediate transfusion of blood, may be employed for throwing milk into the circulation; but, as there are some valid objections to the syringe in the latter operation, any apparatus, therefore, that is free from these objections ought certainly to be preferred.

The apparatus that fully meets these indications, in my opinion, is a modification of the gravitation apparatus, cursorily described by Dr. T. Gaillard Thomas, of New York, in his interesting paper on "Intra-venous Injection of Milk as a Substitute for Transfusion of Blood," recently published.\* Dr. Thomas' apparatus consists of a glass funnel, a rubber tube, and a blunt canula. The important modifications of this apparatus that I have made are the substitution of a sharp-pointed canula armed with a stop-cock, for the blunt one, and the addition of a strainer made of very fine wire. The glass funnel that I use holds about four ounces: the rubber tube is eighteen inches long, and has a calibre of about one-fifth of an inch. The canula is three inches in length, and has an internal diameter or base one-sixteenth of an inch. One extremity of the canula is slightly curved, and terminates in a sharp cutting point in the upper or concave surface, the orifice being a little oblique. The other extremity is provided with a stop-cock. The wire strainer which completes the apparatus is made to fit the base of the funnel.

Before using the apparatus, I have it disinfected with a solution of carbolic acid and water, in the proportion of one part acid to forty of water; then it is to be allowed to lie in a warm alkaline solution till everything is ready for the operation. The animal, either a cow or a goat which is to supply the milk, should be brought as near to the patient's room as practicable, and milked into a receiver surrounded with hot water, at a temperature of 100° F. The milk may be received in a tumbler or cup floating in a bowl of hot water. For this purpose I use my blood-can. While the animal is being milked, I proceed to lay bare a superficial vein in the bend of the patient's elbow, and raise it on a probe, or director.

To expose the vein I make an incision through the overlying skin about half an-inch long, and oblique to the curve of the vessel; with a probe, I then carefully separate the vein from its connection, avoiding, if possible, the cutaneous nerve that crosses the median basilic, the vein that I always select for the operation whenever I have a choice. By the time that the vein is exposed the milk is ready to be poured into the funnel. The funnel connected with the canula by

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\* New York Med. Journal, May, 1878.

means of the rubber tube, is to be held upright with the strainer over its larger opening: the canula with its stop-cock open, is to be held vertically alongside of the funnel. The milk now, is to be poured into the funnel. To get rid of air in the tube and canula, lower the canula till the milk appears at its orifice; if now the stop-cock be closed the milk will be kept in this canula by atmospheric pressure. As soon as the apparatus is filled with the milk the sharp end of the canula is to be gently pushed into the exposed vein, and the director that lies under the vein is to be removed. If the point of the canula be in the vessel the milk will flow slowly into the vein by its own weight, on opening the stop-cock and holding the funnel above the level of the arm. On this occasion I found that the milk did not run freely into the vessel in consequence of the excessive sluggishness of the vein circulation; this complication was readily overcome by raising the arm, on which the operation was being performed, slightly above the patient's body. When the desired quantity of milk has entered the circulation the canula is to be quickly withdrawn from the vein while the vessel is compressed just above the wound. A firm compress is to be laid over the wound, and secured by a few turns of a bandage. Should there be any apprehension of subsequent hemorrhage from the part it would be well to apply a spiral reversed bandage to the hand and forearm.

In all of the cases that I have operated on, having performed intravenous injection of milk ten times during the last six months, I have not found it necessary to ligature the vein either above or below the puncture. No unpleasant local complications, such as hemorrhage, erysipelas, cellulitis, angio-leucitis, or inflammatory infiltration have followed the operation in any of my cases. On the contrary, the small wound has healed by the first intention in every instance. In one case, on the fourth day after the operation, I found that the blood was passing freely through the vein that had been opened, clearly proving that the puncture had been closed at this early date without occlusion of the lumen of the vessel. In consequence of the facility with which these operations were performed with the gravitation apparatus, and the absolute freedom from all risks of air or foreign bodies gaining access to the circulation of the patient, I determined to use this apparatus in the first case of transfusion of blood that I might be called on to perform.

I had not long to wait for the desired opportunity. On the 26th of Oct., 1878, Drs. John and Daniel Gammas sent for me to transfuse a female patient of theirs who was dying of hæmophilia consequent upon a dyscrasia following an attack of typhoid fever.

*In this case I employed the gravitation apparatus with most satisfactory results, so far as the operation itself was concerned.* About eight ounces of blood were drawn from the arm of the patient's husband into the blood-can, where the clot was whipped out by means of a whisk of broomcorn. The defibrinated blood was then poured into the funnel through the wire strainer as already described, and six ounces were slowly introduced into the median cephalic vein of the moribund patient. In this case I experienced less trouble in throw-



ing the blood into the circulation, with this exceedingly simple apparatus, than I have had with the syringe, or with Aveling's instrument in previous cases. Therefore, in the light of my limited experience with the various transfusion apparatuses, I am fully persuaded that the gravitation apparatus is the safest and best means that we possess for mediate transfusion of blood or intra-venous injections of milk.

The reservoir used in the III case for the milk was an ordinary tumbler set in a tin basin of hot water. The milk was conducted from the tumbler to the canula by means of a syphon tube. A blunt canula was used so that it was necessary to make a small incision in the vein for the point of the canula.

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### HOSPITAL RECORDS.

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#### BELLEVUE HOSPITAL, NEW YORK.

Reported by E. HOCHHEIMER, M.D., House Surgeon.

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#### EPITHELIOMA OF GLANS PENIS—AMPUTATION WITH THE ECRASEUR.

Patrick B., æt. 45, laborer, was admitted to Bellevue Hospital, Aug 20th, 1878, with an epithelioma, presenting the usual cauliflower-like appearance, involving the glans penis. According to the patient, whose family history gave no indication of inheritance, the new growth first made its appearance in June, at which time it was of the size of a hazel-nut. Since then it had rapidly increased in size and become very painful, so that he desired its removal.

As the inguinal glands were unaffected, it was determined to wait a short time until his general condition was improved.

*Aug. 30th.*—The penis was amputated about one-half inch behind the corona, with the ecraseur. At the time of the operation there was no hemorrhage, but five hours later the dorsal artery of the penis spurted. This hemorrhage was easily controlled by pressure.

Patient continued to do well till the 6th day after the operation when erysipelas set in and lasted about four days, resulting in the formation of a triangular slough on the under surface of the stump, which separated on the 12th day, leaving an ulcerating surface about  $1\frac{1}{2}$  inches long and  $\frac{3}{4}$  wide, penetrating the urethra, so that patient had a hypospadias. From this time forth the cicatrization, both of this patch and of the end, progressed favorably so that when the patient left the hospital on the 17th of October, the process of repair was complete. There still existed underneath, a small opening just large enough to admit the end of a probe, through which urine flowed in the act of micturition. It was hoped that this would eventually close by contraction of the cicatrix, and his failure to report since has changed our hope into belief.

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#### FRACTURE OF BASE OF SKULL—RECOVERY, WITH DEAFNESS OF ONE EAR.

John M., aged 31, policeman, was admitted to Bellevue Hospital on the 18th of August, 1878. He gave a history of having been



struck on the head from behind and knocked senseless. He regained consciousness in a short time and on admission to the hospital was perfectly rational, though more or less drowsy. He was bleeding from the nose and left ear; had a scalp-wound in the left parietal region, but no fracture at this point could be found.

Shortly after admission he vomited; but the next day, the nausea disappeared and the bleeding from the nose ceased. The bloody oozing from the left ear continued for a week, when it, also, stopped; at which time the drowsiness also disappeared. At no time were there any symptoms of compression; but when the patient was discharged, on the 7th of September, he was entirely deaf in one ear, and the otoscope showed that this was owing to rupture of the membrana tympani.

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UNUNITED FRACTURE OF RADIUS AND ULNA.—UNSUCCESSFUL  
ATTEMPTS TO SECURE UNION BY WIRING.

Cornelius Reilly.—age 45,—Ireland. In last part of February, 1875, patient slipped and fell upon an icy sidewalk, breaking the radius and ulna of the left arm. On March 1st, he was admitted into ward 9, Bellevue Hospital, where the forearm was put up in a plaster-splint, and so kept for 5 weeks; upon removal of splint, there was no union. Patient then left hospital. In September, he returned, and was admitted to ward 8. There, Dr. Markoe operated upon him, cutting off the ends of the fragments. For a week, the forearm was supported by anterior and posterior wooden splints; afterwards a plaster-splint was applied, which was left on for 4 weeks. As before, upon removal of splint, it was found there was no union. Patient left, and did not return, until November, 1876, coming under care of Dr. Hamilton, who wired the ends of the fragments together, and applied a gutter splint upon the anterior surface of the limb, from the wrist to the shoulder. When this splint was removed, seven or eight weeks later, the bones were still ununited. In March, 1878, Dr. Mason wired the fragments together, and applied anterior and posterior wooden splints for a week, followed by a plaster-splint for seven weeks. The bones still failed to unite. Since that time, patient has remained in the hospital, wearing anterior and posterior wooden splints. Non-union still exists. Patient has had motion of fingers somewhat improved, but further than that he has been in no wise benefited by the operations.

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PERISCOPE.

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SEVERE GUNSHOT WOUND THROUGH THE THORAX—SUBSEQUENT  
ABSCESS—ASPIRATION—RECOVERY.

William Oram, aged 21, seaman on board H. M. S. Falcon, in a boat expedition on a river near Sierra Leone, was wounded by a native, who from a tree, fired from a weapon like a blunderbuss a ball about the size of a pigeon's egg, which entered the thorax on the

left side, in the region of the second rib, and left posteriorly between the seventh and eighth ribs. He felt choked and coughed up much blood, but more came from the wounds, from both of which air escaped with considerable noise. When taken on board his ship, the wounds were plugged and bandaged, though the surgeon pronounced he could not live twenty minutes. The voyage lasted four months, during which seven pieces of bone came from the wound of exit, which healed first, when the patient suffered much from sickness, the vomit being pus. He was landed at Ascension and sent into hospital, where he remained four months, with a daily discharge of a pint of pus. Both the wounds kept healing alternately, but he felt best when both were open and discharging freely. He returned to England and, was admitted into Haslar Hospital, where he remained three months, the wounds being kept open with tents, portions of bone resembling small sand coming away. With the aid of his native climate and good living, both wounds healed completely and he was discharged invalided, and for sixteen years enjoyed good health, never being confined to bed for a single day.

On November 24th, 1877, he complained of cold, and difficulty of breathing, caused by bronchitis, and of a pain and stiffness in the back corresponding with the wound of exit, around which there were some redness and swelling, which gradually increased until it extended posteriorly over a considerable portion of the thorax, from the spine to some distance beyond the wound of exit. On December 1st, just seven days after the first seizure, the patient had a severe rigor and great oppression of breathing, which determined me to evacuate the abscess; and, with the aspirator, about twelve ounces of pus with a fœtid odor were speedily withdrawn, but no more could be obtained. This gave great relief, and the patient went to sleep shortly afterwards. About two o'clock next morning, he awoke in a fright, hearing a kind of report, and a moment afterwards he felt choking, when a quantity of light chocolate-colored pus was expectorated, amounting to about three quarts, the larger quantity of which was discharged in a few minutes. Emphysema of the cellular tissue commenced and extended over the body, and the entry of air into the cavity of the abscess and its exit were plainly heard with each inspiration and expiration. Next day, the skin over the external portion of the swelling being tense, I used the aspirator again at a different point, and drew off nine ounces of pus. From this time the pus was freely discharged from the first opening made by the trocar and by expectoration, and in a few weeks the patient recovered completely, and is now (Sept. 20, 1878), in robust health.

The wonderful recovery from the gunshot wound makes this case most interesting, and, in the last seizure, the mode in which part of the contents of the abscess was evacuated, affords a good example of the conservative effort of nature in setting up adhesion, and affording a safe passage of the matter by the bronchi. James Braid, M.D.,  
—*The Brit. Med. Jour.*

## HOT AND COLD BATHS.

"The *London Lancet* in a recent number, points out the difference between the effects of hot and cold baths. The effects of the cold baths, it says, being mainly due to the impressions made upon the cutaneous nerves, the modifications of the cold bath largely depend on their power of increasing its stimulating action. The colder the water, the more violent the impression. The frequent change of water, such as is found in the sea or in running streams, increases the stimulating effect. Great force of impact, as when water falls from a height or comes forcibly through a hose upon the body; the division of the stream, as seen in shower baths and needle baths, and the addition of acids or salt to the water, all act, it would seem, by increasing the stimulating power which the water exerts upon the cutaneous nerves. Warm baths produce an effect upon the skin directly contrary to that brought about by cold water. The cutaneous vessels dilate immediately under the influence of the heat, and although this dilation is followed by a contraction of the vessels, this contraction is seldom excessive; and the ultimate result of a warm bath is to increase the cutaneous circulation. The pulse and respiration are both quickened as in the cold bath. The warm bath increases the temperature of the body, and by lessening the necessity for the internal production of heat, decreases the call made upon certain vital processes, and enables life to be sustained with a less expenditure of force. While a cold bath causes a certain stiffness of the muscles, if continued for too long a time, a warm bath relieves stiffness and fatigue. The ultimate results of hot and cold baths, if their temperature be moderate, are about the same, the difference being, to use the words of Braun, that "cold refreshes by stimulating the functions, heat by physically facilitating them; and in this lies the important practical difference between the cold water and hot water systems." —*Continental Lancet and Clinic.*

## CARDIAC SYPHILIS.

We abstract the following from the digest of the literature of this subject in the last issue of the *Archives of Dermatology*. Twenty-four cases, collected from French, English and German authors from the bases of Grenoullier's thesis. The author agrees with Lebert, Virchow and Ricord as to the existence of a syphilitic endocarditis. The muscular tissue of the heart is, however, by far the most often involved. Syphilitic myositis, terminating nearly always in fibrous sclerosis, starts as a small gumma, analogous to gummata of other organs.

Virchow, Langerhans and Hutchinson believe in the existence of a diffused generalized myositis without tumor. This myositis differs from that seen in rheumatism and chronic alcoholism by the quantity and the hardness of the fibrous proliferations it gives rise to. Gummata of the heart are very common. Eighteen gummata were found in the twenty-four patients. They have been observed in the first year after infection. The wall of the left ventricle seems to be their most common seat.



The study of symptoms during life is far from complete. In most of the patients an affection of the heart was suspected, but auscultation did not allow any precise diagnosis to be reached. Sudden death was the most common termination (about two-thirds of the cases). Cerebral complications not uncommon. As to treatment: In two cases in which Lancereaux suspected syphilitic disease of the heart, treatment gave good results.—*Cincinnati Lancet and Clinic*.

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#### SEA AIR AND SEA BATHING IN CHILDREN'S DISEASES.

Dr. Jerome Walker (proceeding Med. Soc. of Co. Kings, May, 1878,) gives an analysis of the work done by several sea-side homes for children. Dr. Bennett, of the Atlantic City House, writes that some diseases are made worse by a short stay at the sea shore, others are uninfluenced, and others still are benefited. In the first class are most of the inflammatory diseases of the skin, and the inflammatory diseases of the eye, except when of a strumous origin, or after a prolonged stay at the seaside.

The second class includes cases of heart disease, Bright's disease, epilepsy and locomotor ataxia. The third embraces asthenia, convalescence from surgical operations, long sickness and even from scarlatina, cases of chronic nasal and pharyngeal catarrh, consumption in its early stages before breathing is impaired, joint diseases and chorea. Children suffering from debility and summer diarrhœa should have ten days to two weeks at the seaside to derive permanent benefit, and for joint diseases several weeks. At the Beverly Home "there is almost an invariable improvement in pretty much every class of cases except lung troubles; many severe cases of cholera infantum begin to improve immediately after their arrival at the sea-shore; if no improvement is noticed at the end of the second or third day, it is rare to occur at a later date. At the Coney Island Home fully three-fourths of the children admitted under five years of age were convalescents or were suffering from some form of gastric or intestinal trouble and nearly all recovered after a week's stay.—*Maryland Med. Jour.*

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#### VOMITING AFTER OPERATIONS.

*Gaz. Hebd.*: Prof. Verneuil, at a meeting of the Surgical Society of Paris made some observations on the occurrence of obstinate vomiting after operations and wounds. He did not allude to vomiting that might be dependent on eating too soon afterward, impure chloroform, regurgitation of the saliva, etc. In the cases he has in view, the patients vomit saliva, bile, or ingested substances without apparent cause; they become fatigued and anxious, and dare not eat or drink; while the efforts in vomiting sometimes induce oozing of blood from the wound. Prof. Verneuil meets with three or four such cases in his ward annually. This form of vomiting seems especially to occur in "alcoholics," as also in subjects of disease of the liver and kidneys, and in persons of bad digestion. The prognosis in these cases is not usually very serious, though sometimes may

cause uneasiness. Ice has been given with success, and in some cases morphia injections arrest the vomiting. It is of importance that the patients should be nourished; but wine, as well as milk, is badly tolerated. What succeeds best is ice, mucilaged and alcoholized water, and pepsine, in the dose of fifteen grains morning and evening. Prof. Verneuil's object is to show that the cause of obstinate vomiting after operations is an anterior dyspeptic condition, and that frequently there are alterations in the internal organs, chloroform only playing quite a secondary part in the production of vomiting.—*Louisville Med. News.*

#### STIMULANTS IN TYPHOID FEVER.

In a recent clinical lecture, Prof. Pepper, of the University of Pennsylvania, has some observations upon the contested issue whether stimulation is valuable in cases of typhoid fever. "Stimulants," he is of the opinion, "are, as a general rule, only needed in the case of an elderly person, or to meet certain indications, such as: 1st, ataxic nervous disturbances, muscular spasms, sleeplessness, and maniacal delirium; 2nd, Circulatory disturbances, feeble and rapid pulse, and feeble development of the first sound of the heart; 3d, Profound asthenia, as showing tremulousness, inability to make any movement, and tendency to slide downwards off the pillow; 4th, Dry and brown tongue, and sordes on the lips, teeth and tongue." In using stimulants, he recommends to begin with the milder forms, such as wine whey made in the proportion of one part sherry to 3 parts milk, from a gill to a half pint to be given in the course of three hours. He prefers to give whisky in lime water and milk, in the proportion of a teaspoonful of the former to 3 ounces of the latter. Half-ounce of whisky per hour he regards the maximum dose.—*St. Louis Med. and Surg. Journal.*

#### EXCISION OF THE UTERUS.

Dr. Herring, of Leipsic, communicated to the *Ninth Naturforscher-versammlung* a remarkably successful case of excision of the uterus, for cancer of the neck. The disease had not returned at the time of the report. (Eight months subsequent to the operation. In the performance of the operation the uterus was first separated from the anterior wall of the vagina by the knife and scissors, then from the anterior fold of the peritoneum with the fingers; the broad ligament bled very little; the fundus was drawn forward with the combined aid of the fingers and a tenaculum, and its posterior connections with the vagina divided without difficulty; the disease involved the posterior vaginal wall, and one tubercle had invaded the rectum. In the removal of this latter tissue, an opening was made into the rectum; the left ovary and tube, and one-half of the right tube adherent to the uterus were removed with it.

The uterus was not separated from the peritoneum as intended, but there was evidence that old peritoneal exudations had filled up and enclosed the pelvic portion of the peritoneal cavity; the opening

into the rectum was sewed up. There was hemorrhage; the wound was cleaned by injections of salicylic acid, used twice a day. Peritonitis supervened, reached its climax on the fifth and gradually subsided. Four weeks afterwards the recto-vaginal fistula was again closed by subsequent operation. Four months later a small soft growth appeared in the neighborhood of the fistula, and was removed. The prolapsed uterus has been removed many times by the knife and with the ligature, most cases proving fatal. Dr. Henning has collected twenty-one cases of removal of the unprolapsed uterus. Andreas a Cruce, removed a "scirrhus" uterus per vaginam in 1560, and a similar operation was performed at the end of the eighteenth century by Wrisberg, and by Monteggia. In 1828 Blundell removed the uterus *in situ*; the patient lived a year, but ultimately died from recurrence of the cancer, the disease for which the operation was originally undertaken. The excision of the uterus by separating it from the peritoneum was first proposed and performed with success by Langenbeck. The patient lived for twenty-six years, but the uterus was not cancerous, as supposed at the time of the operation. It is clear from the details of these operations that the pathway is opened to the experimental surgeon, that does not allure the cautious.—*London Lancet*.

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## CORRESPONDENCE.

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### ADDISON'S DISEASE.

*To Editor of Hospital Gazette.*

Dear sir.—By permission of Dr. Delafield I am enabled to add the following information to the case of Addison's disease published by me in the Hospital Gazette of September 12th. Patient was admitted to Bellevue Hospital on September 15th 1878 in such feeble condition that it was not possible to gain a history. He was very much emaciated, physical examination showed fluid in left pleural sac and consolidation in upper part of left lung. Three days after admission patient died.

Autopsy revealed phthisis in upper part of the left lung with a large amount of fluid in left pleural cavity.

The abdominal organs were healthy with exception of the *Supra Renal capsules*. Both these organs had undergone a fibro-cheesy degeneration, were enlarged and contained cheesy nodules and masses of broken down tissue.

Very Respectfully Yours.

RICHARD G. WIENER, M.D.

Late House Physician, Colored Home.

308 2nd. Ave.

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### THE WOMAN'S HOSPITAL.

No. 168 EAST 61ST STREET, NEW YORK, Nov. 20th, 1878.

DEAR DR.: The N. Y. Woman's Hospital is, no doubt, the only institution of its kind in the world where many of the most difficult prob-



lems in the treatment of the diseases peculiar to women have been satisfactorily solved. It is therefore natural that we all, as American physicians, take pride and feel a lively interest in its prosperity and its usefulness. With such men as Drs. Nathan Bozeman, T. G. Thomas and Th. A. Emmet, who have acquired a world-wide reputation as its attending physicians, we may say with justice that it has no equal on either this or the continent of Europe, regarding its excellence in conferring a boon upon those who are admitted within its walls for the alleviation of their sufferings. But it is not with a view of sounding its well-deserved praises that I request you to publish this communication in the next issue of your esteemed journal, but for the purpose of informing your readers of the changes that have taken place within the past week in the medical staff of the hospital. These are the following :

Prof. Fordyce Baker has resigned his position as one of the attending physicians of the Woman's Hospital and the following three eminent gentlemen have been appointed to fill the vacancy caused by his retirement.

Dr. Chas. Carroll Lee, who has been connected with the same institution for seven years as assistant surgeon to the late lamented Dr. Peaslee.

The second appointee is Dr. Jas. B. Hunter, the able editor of the *New York Med. Journal*. The Dr. has been connected with the Woman's Hospital for the past fourteen years as assistant to Prof. T. G. Thomas.

The third appointment has been conferred upon Dr. Emil Noeggerath, of this city. Dr. N. is one of the attending physicians of the German and also of the Mt. Sinai hospitals, and is well known both here and abroad for his contributions to the science of gynecology.

Dr. Hunter's promotion left one vacancy among the assistant surgeons of the Woman's Hospital and each one of the attending physicians having the privilege of appointing two assistant physicians each. I understand the following gentlemen were so appointed: Dr. C. C. Lee nominated Drs. Horace T. Hanks and Dr. A. A. Smith.

Dr. Hunter appointed Dr. Clement Cleveland, formerly house surgeon of the Women's Hospital, and Dr. Ed. H. Peaslee.

Dr. Noeggerath has chosen Dr. Paul F. Mundé, editor of the *American Journal of Obstetrics, &c.*, and Dr. McKenzie.

Dr. Thomas appointed Dr. Henry D. Nicol.

Yours truly,

RUDOLF TAUSZKY

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## NEWS ITEMS AND NOTES.

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The Conversational Meeting at the College of Pharmacy of N. Y. — The conversational discourse before the College of Pharmacy commenced with the reading of a paper by D. C. Robbins, on *Quinine in Commerce*.

A history was given of Quinine since 1870, with the market variations as affected by the principal intervening circumstances, as the at-

tempt of the Peruvian Government, prior to 1850 to monopolize the sale of Bark, and the tariff variations since 1832, when this article made its first appearance in the custom lists of the country; it having been classed previous to this date, as an unenumerated article under 5% revenue duty.

A list of all the various duties on Bark and Quinine since 1832 was given, and the opinion was expressed that our present duties on all the products of Cinchona Bark, as 30% on Sulphate and 45% on other salts of quinine, taking into consideration the demand for quinine, was very objectionable.

A statement of the process and the requirements for the manufacture of quinine was given, to show that our inability to cope with Europe, was due to the fact that our navigation laws by duties on shipping, made the European market the best resort for the crude article. Besides, it was evident that other nations were in advance in the science of the Cinchonas—Quinology.

The ruling quotations for quinine in Europe, appear to prove that this knowledge is farthest in advance in Germany; next in France and in England.

The lecturer believed that the determination of the value of the bark, which was a very difficult matter, was as well understood in the United States as in any country; and that there was little doubt that our machinery and devices to save labor and expense, were in advance of other nations.

A wise conservative tariff policy was advised, and that all duties upon these very important medicines, be reduced 10% ad valorem.

The discussion upon quinine in Pharmacy, was a very important one, and participated in by Mr. Chas. Rice and others. Tables were exhibited to show the solubility in ether of the various quinines of commerce, fifteen in number; as also the extent to which many varieties could be combined with Cinchonidia and make a clear solution U. S. P.

A table of densities of the various Quinines was also exhibited, by which it appeared that an organic change took place in the crystallization of the salts of quinine, as the bulk of some varieties of the salts of quinine when finely powdered, was double that of others, and this last fact, which had never been noticed in our journals, had a very important bearing upon excipients and pill masses.

Stenographic notes of the conversation were taken and referred to a committee for revision.

**A Method of Obtaining Pure Milk.**—The diet of hand-fed children has always been a matter calling for the most careful consideration of the medical profession, and good cow's milk almost always forms at least a portion of the food ordered by the physician. In fact we may say that it *always* does, for even in those cases where Infant's Food is prescribed it is preferable to prepare it with cow's milk, when this can be obtained pure. For years, however, the citizens have been robbed, and infants have fallen victims to milk from swill fed cows, which every intelligent person knows is diseased and disease producing. Even the milk obtained from the country is but



little better after it has reached the consumer, it having been watered and *doctored*, to such an extent as to lose almost entirely the characteristics of milk. Lately our attention has been called to a new departure in the milk trade which we think promises fair and which should meet with the approval of the profession. It is that of bottling the milk fresh daily at the farm, as it comes from the cow, and serving to consumers in quart bottles, sealed and bearing the date of filling. When it is desirable to feed a child upon the milk of one cow, an extra charge is made, and the milk is carefully labelled "Cow No. 34" or "Cow No. 19," &c. This is the plan of "Sweet Clover Farm," at Sharon, Conn., whose office is at 390 Fourth Avenue, where members of the medical profession are invited to call, examine, and test the merits of the milk sold.

A quart bottle will be delivered free to any physician desiring it, upon application. We think this experiment should be encouraged and supported.

**Pyrogallie Acid in Psoriasis.**—Dr. A. Jurisch. We have already in our July number, on page 228, given a resume of some experiments made with pyrogallie acid as a substitute for chrysophanic acid in psoriasis. The author now reports his complete success in the treatment of this affection by the agent indicated. At first he used an ointment containing twenty per cent of pyrogallie acid; this was, however, found to produce excoriations. Hence, he has reduced the ointment, as ordinarily used, to the strength of ten per cent., and in some cases he uses it only of five per cent. If spread on muslin, and then applied, it must be still further diluted, otherwise it acts as an irritant. Aqueous solutions should contain about one per cent. Pyrogallie acid acts not as rapidly as chrysophanic acid, but is equally certain in its results.

**The Specific Gravity of Brains.**—Two Italian physicians, Drs. Colombi and Pieri, have carefully examined the specific gravity of the brain in seventy post mortems. They find 1.023 for men and 1.016 for women; but these figures also vary considerably according to age, the average (for both sexes) being 1.019 up to fifteen years of age, 1.026 between fifteen and forty five, and 1.017 afterwards. The brains of insane patients vary considerably on either side of these figures, the lowest they have observed being 1.013, the highest, in one containing many nodules of sclerosis, 1.044.

**The Number of Spanish Medical Students.**—We learn from the *Gaceta Médica de Madrid*, that there are now 21,620 medical students in attendance at the universities of Spain. The Madrid University has 6,996 of these, and the school of Barcelona 3,630.

**Pseudo Hypertrophy in a Girl.**—Dr. A. Jacobi, (Am. J. Obs., October, '79.) Patient was a girl, eight years old, had always been healthy. The swelling involving, four years ago, only the right leg remained stationary until three months ago, when, it began to increase rapidly. It did not involve the foot, nor the gluteal muscles. There was only slight interference with motility, the sensibility was not affected.



Under the influence of mercurial treatment the circumference of the thigh had diminished nearly three centimetres.

**Balata.**—This substance, a substitute for gutta percha, which it closely resembles, has recently attained importance in commerce. It is obtained from a tree that grows upon the banks of the Orinoco and Amazon rivers of South America, after a manner similar to that of obtaining caoutchouc and gutta percha.—*The Boston Journal of Chemistry*, in describing the characters of the substance, says, that though inferior to caoutchouc in extent of its uses, it has points of superiority over gutta percha. It gives an agreeable odor when warmed, is flexible and more elastic than gutta percha, may be joined piece to piece at a temperature of 120° Fahr., but requires 270° for melting, a higher point than for gutta percha. It has various solvents, and will be valuable for insulating purposes.

**Hamburg Tea.**—A common formula for preparing Hamburg Tea, according to a correspondent of *New Remedies*, is: Senna leaves, eight parts; manna, four parts, coriander, one part. Mix.

**The Mortality of Children of the Well-to-do Classes.**—Some important tables of statistics have recently been drawn up on this subject by Mr. Charles Ansell, Jr., for the National Life Assurance Society of London. In this work, entitled, "Statistics of Families of the Upper and Professional Classes," published in 1874, the author shows, from inquiries made respecting forty-eight thousand and forty children of the well-to-do classes in England, including members of the clerical, medical, and legal professions, and nobility, that in the first year of life only some eighty children die per thousand born of such parents.

**Medicine in Greece.**—The University founded at Athens in 1837, is one of the most magnificent edifices of the capital, in which are taught theology, law, medicine, and philosophy, possesses a botanic garden, and a hospital for diseases of the eye, syphilis and accouchments. Medicine is taught there by twenty-one professors and seven substitutes, and during the forty years that have elapsed, eleven hundred and eighteen medical students have obtained their diplomas. The million and a half inhabitants of Greece may at the present time have recourse to seven hundred and ninety-seven doctors, three hundred and thirty-three pharmaciens, and seven hundred and sixty-nine midwives.

**American Medical Women.**—On first Wednesday in November, 1848, the first medical college for women in the world was opened at Boston. Twelve women formed the first class of female medical students. This was the small beginning of the medical education of women that has since spread so rapidly over America and Europe. The census of 1870 reports five hundred and twenty-five women doctors in the states, whereas in 1878 there was not one.

**A Local Anæsthetic.**—Dental Cosmos: R. Pulverized camphor,

3 vi; Sulphuric ether fl ʒ i. Apply to the gums surrounding the tooth to be removed, with a pledget of cotton moistened with the preparation, until the gums turn white, when the tooth can be extracted with very little pain.

**Detection of the Principal Adulterants in Ground Coffee.**—According to C. Krauch quoted in the *Chemical News*, coffee is distinguished by its high percentage of fatty matter minimum 11 per cent. as against 1.15 per cent. of chicory, and by its low proportion of sugar 0.2 per cent. as against 22 per cent. in chicory. —*Brit. Med. Jour.*

**Scirrhus of the Testicle.**—This form of cancer, M. Nepven observes (*Gazette Hebdomadaire*, Sept. 6), has been denied by Rindfleisch and doubted by numerous pathologists. He has found six well confirmed cases—two reported by Sir Astley Cooper, two by Curling, one by Dolbeau, one by Klebs. He had himself published one case with M. Manoury in 1871, and since that time he has observed two cases—in all, nine. Laying stress on the microscopical examination which he has twice made, and on the reports of Robin and Klebs, he thinks that the existence of scirrhus of the testicle is undeniable; and, by the aid of observations which he has collected, he describes with details the signs which especially belong to this lesion; small volume, woody hardness, slight sensibility, very slow progress (from two to six years). —*British Med. Jour.*

**Opium Culture.**—The cultivation of opium has been established in Eastern Africa. Fifty thousand acres of land at Mozambique have been sown with the best poppy-seeds from Malwa by a Portuguese company. It is stated that the enterprise is succeeding well.

# THE HOSPITAL GAZETTE

AND

## ARCHIVES OF CLINICAL SURGERY.

A WEEKLY JOURNAL OF MEDICINE, SURGERY AND THE COLLATERAL SCIENCES.

EDITED BY

EDWARD J. BERMINGHAM, A.M., M.D., and FREDERICK A. LYONS, A.M., M.D.

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WHOLE No. 60.

### LECTURES.

#### CLINICAL LECTURE ON DISEASES OF WOMEN.

Delivered at the College of Physicians and Surgeons, New York.

BY

T. GAILLARD THOMAS, M.D.

Professor of Obstetrics and Diseases of Women.

#### URETHRAL CARUNCLE.

GENTLEMEN : Our first patient to-day is Mrs. Ann R——, sixty-seven-years of age, and a native of the United States. She has had but one child, who was born thirty-one years ago, and has never had any miscarriages. She has complained of her present trouble for about a year, and says in regard to it that the first thing she noticed was a bearing-down sensation and difficulty in passing her water. Since then she has had from time to time a discharge of blood and matter, as she expressed it, in connection with the urine, and has all the time been in such extreme suffering that life has been rendered miserable and death desirable in consequence. She has been obliged to get up two or three times during the night to pass her water, and also passes it very frequently, and in small quantities through the day.

In the meanwhile she has consulted three physicians, and they all told her that an operation would be necessary to relieve her ; but to this she has never been willing to give her consent.

When the patient states that life has become an almost intolerable burden to her she is not exaggerating her sufferings in the slightest degree. There is present here a peculiar condition to which I wish to direct your especial attention to-day, for, in all probability, we may not have another similar case at the clinic during the entire session. One is liable, however, to meet just such cases at any time in actual practice, and I want you to be prepared to understand them fully, and know how to treat them properly whenever you may happen to meet with them.

On making an examination *per vaginam* I found that there was nothing whatever wrong about the uterus. It was, of course, extremely



small, as we would naturally expect at this time of life, and the vagina had also undergone physiological atrophy ; so that it had become a very insignificant canal. The moment the finger touched the *meatus urinarius*, however, the patient complained of the most excessive pain, and, on inspection, it was found that there was a mass of a bright red color attached just within the urethra ; while further in the passage were two or three other growths of similar character. These masses, which bleed easily and are extremely sensitive, consist of a hypertrophy of the normal tissue of the urethra ; and they are quite vascular, and very richly supplied with nerve filaments.

The affection is known as *urethral caruncle*, and its effects are as follows :

In the first place, it gives rise to intense pain. This is in reality a pelvic neuralgia analogous to the intense neuralgia about the head and face which may be excited by a minute ulcer upon the conjunctiva, or other similar point of irritation.

Secondly, it sets up a urethritis ; the inflammatory action often being very marked, and resulting in an extensive formation of pus.

Thirdly, it causes the most violent vesical tenesmus, so that when the patient has emptied the bladder she feels a constant desire to urinate again.

It can be readily imagined, therefore, what misery such a patient must be in ; and all the trouble is due simply to the presence of this little caruncle at the orifice of the urethra. That this old lady has suffered so long without relief, it would seem, is not the fault of her physicians ; but is due rather to her own obstinacy in refusing to have the growth removed by operation, as they recommended. Like many others, looking with dread upon anything that is called an operation, however slight, she, unfortunately for herself, preferred to suffer on as before. The simple name of operation made her rather bear the ills she had, than fly to others that she knew not of.

There is, however, only one thing in this world that will cure a urethral caruncle, and that is its complete removal. The method of procedure is as follow : Having thoroughly anæsthetized the patient, (and ether can be administered with as much impunity to an aged person like this as to a young child,) the operator dilates the urethral canal by means of bougies made for the purpose, until it will readily admit the little finger. All the growths should then be carefully and gently cleared away by means of a curette such as you have so frequently seen me use for the purpose of scraping the lining mucous membrane of the uterus for the removal of granular proliferations ; and if there should be any pedicle, Paquelin's incandescent cautery should be applied, in order to prevent any tendency to a return of the growth in the future. The previous dilatation of the canal renders the latter a very easy procedure, and indeed of itself would do the patient much good. There is usually a little irritation following the operation, which renders it necessary to quiet the patient with morphia ; but as soon as this is over, she is perfectly well, and at once enters upon a new existence. Various caustics have from time to time been used in the treatment of these urethral caruncies ; but in

my opinion, (which is based on a considerable experience,) there is nothing so good for the purpose as the actual cautery. As a last resort, this patient has now consented to have the operation performed, and at our next meeting I propose to perform it, hoping to have the pleasure of rendering her from that time a well woman.

FIBROID IN THE POSTERIOR WALL OF THE UTERUS GIVING RISE TO RETROVERSION, BUT ALMOST WITHOUT SYMPTOMS.

Our next patient is Margaret M.—, a native of Ireland, thirty-one years old, and unmarried. When I ask her how long she has been sick, she replies, five years. Before that time she states that she was not perfectly healthy ; but she feels much better than she has since. In reply to my inquiry as to what she complains of, she says, "Headache, backache, nervousness and depression of spirits." Then when I ask further if there is nothing else that troubles her, she replies in the negative.

There, you perceive, is a set of symptoms which do not point particularly to the uterus. Every right-thinking practitioner of medicine always hesitates about proposing a vaginal examination in any case, unless he really thinks some good will result from it. Is there enough in the history given to justify one here ? The nervousness complained of might depend upon a thousand causes ; and the same is true of the depression of spirits. As to the headache, all women have headache, and a great many men as well. The backache is really the only thing which seems likely to depend on some uterine trouble. To see whether this is probably the case or not, let us now put a few direct questions to the patient.

Is there anything wrong about your monthly periods ? " Nothing whatever."

"How long do they last ?" "Two or three days."

"Is the discharge free or small ?" "Rather small."

"Do you have much pain at the time of your periods ?" "No."

"Do you ever have any difficulty in passing water ?" "No, none at all."

"Do you have the whites ?" "I used to have, but do not now."

There is, then, nothing whatever to suggest an examination of the pelvic organs ; but as at the clinic, (where the practice is necessarily somewhat different from that in private,) we always like to be sure that there is no trouble connected with these, an examination was made.

On passing my finger into the vagina, a normal multiparous cervix was found, but the body of the uterus, instead of being in its natural position, was lying backward ; while posterior to it and somewhat to one side was a growth of considerable size, which was pressing directly against the rectum and entirely blocking it up. From the fact of their being no symptoms it seemed scarcely likely that it could be connected with the uterus ; but whether this was the case or not, the question presented itself : What is it ? Possibly an impaction of feces in the rectum. But an examination of the bowel showed at once that it could not be this. Having excluded this supposition, therefore, I endeavored to discover whether it moved with the uterus or not, and



found that it did, while, on more careful manipulation, I determined it's size to be about that of a hen's egg.

Then I questioned the patient again, and ascertained that five years ago at the Woman's Hospital Dr. Sims had removed from her uterus a polypus just about as large as the present tumor. Therefore, I now began to say to myself, this must be a fibroid after all, because she has already been the subject of such a growth; (the polypus formerly existing being, of course, of the submucous variety of fibroid).

I next placed the patient on the side and elevated the side of the table to which her back was turned, as I invariably do in my examinations in my office, in order to exaggerate Sims' position. When I endeavored to pass the uterine sound, bent in the normal curve, I found this was impossible; but when I had almost entirely straightened it, it could be introduced to the fundus quite readily. Then, while my finger was in the rectum, I lifted the uterus by means of the sound, and found that the tumor was also raised with it; so that when the former was allowed to return to its ordinary position, the latter fell back upon my finger as before. This test showed conclusively that the mass observed could not be the result of pelvic cellulitis or of perimetritis, such as had been present in one of the cases which I showed you last week; because such a phlegmon is always invariable in the pelvis. The diagnosis at which I arrived, therefore, was: Retroversion in the second degree, produced by the weight of a fibroid tumor in the posterior wall of the uterus.

Can the mass discovered be anything else than a fibroid? Although such growths are extremely rare, there is a possibility that it might be a sarcoma; but this is rendered altogether improbable by the fact that it has caused the patient so little suffering. If it were a sarcoma, it would have grown very rapidly, and if such a tumor had existed for five years, (which is very unlikely,) it would be of a very much larger size to-day. It is safe, then, to conclude.

*First.*—That we have a fibroid of the uterus here.

*Secondly.*—That the retroversion has been caused by it, and,

*Thirdly.*—That the backache is undoubtedly due to this cause.

Such being the nature of this patient's trouble, I will only ask you to bear in mind the remarks which I recently made to you concerning fibroids, especially as to their being such benign growths, and the remarkably few symptoms to which they ordinarily give rise.

In connection with this case, let me give you a warning. Suppose a patient like this should present herself at your office, and that, both in your general questions and in those directed especially to the menstrual function, you should fail to elicit the fact that there was any trouble whatever about the uterus, except, perhaps, a trifling amount of leucorrhœa. Under the circumstances, you would not feel justified in making a vaginal examination, and would simply prescribe such nerve-tonics and such alterations in the patient's mode of life as this case seemed to require. But the patient, being dissatisfied, perhaps, might consult another physician, who might insist on making an examination and so might discover some such state of affairs as exists here. A flood of light would then be let in on the case, and



you would be set down as an *ignoramus*; and, nevertheless, you would have done perfectly right, and it would be far better for you to have to bear such obloquy occasionally than to make a practice of examining every female patient that comes to you. You can always say that you are quite willing to make an examination if the patient desires it, although the symptoms do not seem to point to any uterine trouble. In the present instance there was nothing whatever to suggest any pelvic disorder except a certain amount of backache, and this is the commonest thing in the world with women generally; while not a few men also suffer from it. Fibroids frequently exist, as I have before remarked, without giving rise to any symptoms at all; and I do not doubt that this woman will in reality receive more harm than good by coming here to-day, because, now that she knows that she has a "tumor," it is probable that she will be inclined to worry herself about it.

As to the treatment in this case, the patient should be left absolutely alone, so far as any local interference is concerned. If the attempt were made to keep the uterus up in position by any mechanical contrivance, it would only make the fibroid sensitive, and cause her a great deal of unnecessary pain. The only thing to do is to live as well as she is able to do—in the meantime taking such tonics as seem to be indicated—and wait for the menopause; when she will forget that she ever had any "tumor" at all. I cannot exactly see how the uterine condition here present should have any special effect in depressing the spirits; except that as the fibroid is an indication that the state of her system is not as good as it ought to be, her mind is somewhat affected by her lack of nervous vigor and the impairment of her general health.

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#### PELVIC PERITONITIS RESULTING IN ANTEVERSION AND FIXATION OF THE UTERUS.

Our last patient to-day is Louisa D—, a native of the United States, and twenty-nine years of age. She has been married seven years, and has had two children and two miscarriages. She states that she has been sick a month this last time, and that she has been suffering from severe pain. This is located more especially in the left iliac fossa; but it also extends over the pelvis. When the pain first seized her, she was confined to her bed for a week, and it was so intense that she was obliged to call in the services of a physician. She does not know what brought on the attack; but says that she had very much the same trouble three years ago, and that she thought this might be a relapse. In answer to my inquiry as to what originated the former one, she replied that she had a miscarriage at that time. She complains of no other difficulty at the present time.

This, then, is the history: Up to three years ago the patient was perfectly healthy; but at that time she had a miscarriage, which was followed by some sort of acute attack. She never felt as well after this as she had before, and about a month ago she had what seemed to her a relapse of her former trouble; from the effects of which she is

still suffering quite severely. A physical exploration having been proposed for the purpose of finding out the present state of affairs in the pelvis, the patient assented.

On passing my finger into the vagina, I found it necessary to carry it very high up in order to get at the cervix, which was lying much further back than normal. Behind the cervix I could not feel the uterus at all ; while extending from it to the symphysis pubis, I detected a hard ridge, which was very tender on pressure. Now resorting to conjoined manipulation, I was able to determine that this hard ridge was unquestionably the body of the uterus, and, moreover, that it was perfectly immovable, as well as acutely sensitive. Any attempt to restore the organ to its proper position would no doubt have proved futile, and would probably have been attended with no little danger. In addition to the uterus being perfectly anteverted and completely fixed, I found that the whole roof of the pelvis, equally on both sides, was hard, resisting, and sensitive. The roof of the pelvis, as you know, consists of the anterior wall of the vagina with the subjacent tissues, and through this the cervix projects into the vagina. The sensation presented by the roof of the pelvis in this case was precisely what you might expect to find in the cadaver if you should fill all the space above with liquid plaster-of-Paris and make an examination *per vaginam* after it had been allowed to set. It would be no longer a lifting roof ; and that was exactly the case here—all the tissues being in a state of complete fixation.

What has caused this condition of affairs ? Pelvic peritonitis ; and the lymph poured out during the inflammatory process has acted in precisely the same manner as the plaster-of-Paris would do in the imaginary case of the cadaver. Now it is a characteristic of such organizable lymph that, as time goes on, it has a marked tendency to contract ; and so the uterus was drawn over by it into a state of complete anteversion. The acute attack of peritonitis occurred three years ago ; but ever since the patient has suffered more or less from its results, and new trouble has been set up by the fresh onset of the affection within the last few weeks. Such a return is very common indeed in pelvic peritonitis, and it may be induced by very slight causes. This patient is still married ; but she has borne no children for three years. Whether this sterility depends on the results of the peritonitis, however, I will not at present attempt to decide.

Now, as to the prognosis here. You will frequently have patients say to you : " Can you cure me, Doctor ? I have been to many physicians and spent a great deal of money in consequence, without receiving any benefit. Now if you think you can cure me, I should like to have you undertake my case, but not otherwise." If a woman in the condition of this one should speak to me in this way, my reply would be somewhat as follows : " No, I cannot cure you, for there is no means known to science by which absorption of lymph and the restoration of the uterus to its proper position can be effected ; but time and the proper management of your case will do a great deal for you." If I were to introduce a repositer here, and, breaking up the firm bands which now keep it in a state of fixation, put the uterus in

position, I have not the slightest doubt that a very violent inflammation would be set up; and it is a melancholy fact that many women die every year just from this very cause. If no such interference is attempted, however, the prognosis as far as danger to life is concerned is very good indeed; because the disease has already done its worst. If the patient will take proper care of herself, (such as would be enjoined upon her after an attack of pleurisy, for instance,) she may go on for years without having another relapse.

What are we to do for such a patient in the way of treatment? Were the case in your hands, you should endeavor to preserve her general health in the best possible condition, and, what is of great importance, keep her from all vaginal examinations in the future. The introduction of a uterine sound or probe might do incalculable mischief, and even such a digital examination as has been made to-day is not without risk. Furthermore, it would be well to advise the patient to take off as much weight as possible from the pelvic organs by wearing all her clothing suspended from the shoulders; and, finally, in order to remove the pressure of the bowels upon the uterus, she might make use of a suitable abdominal supporter. In this way she will be rendered as comfortable as possible, and the liability of recurring attacks of inflammatory trouble to a great extent avoided.

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## HOSPITAL RECORDS.

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### BELLEVUE HOSPITAL, NEW YORK.

Reported by JNO. N. MACKENZIE, M.D.

#### ACUTE DYSENTERY. SECONDARY ABSCESS OF LIVER.

Catherine M., aet. 50, was admitted October 31st. She was taken sick two days previously with headache, nausea, pain in bowels, and diarrhœa attended with considerable tenesmus and the passage of some blood. On her admission she was very weak and had bloody stools. Thirty grains of ipecac were administered and ten minims Magendie injected hypodermically. The next day one-quarter grain of nitrate of silver, every three hours, was ordered; the third day, fifteen grains of oxide of zinc and twenty grains of bicarbonate of soda, every three hours, were given; but the diarrhœa continued and the patient was delirious at night. This state of things continued until the ninth day, when the patient had a flushed face, dry, cracked tongue, excessive thirst, nausea and vomiting. The abdomen was tympanitic, tender on pressure, especially on the right side; on the tenth day she died.

The autopsy, twenty-four hours after death. The liver was found to be large and fatty and to contain, both on its surface and in its interior, a large number of spots, about three-quarter inch in diameter, of dull yellow color and of a consistence rather less than that of the surrounding tissue and surrounded by a zone of congestion. On microscopical examination, the liver cells in these spots were found to have lost their nuclei and to be in a state of fatty degeneration or incipient abscess.



In the colon and rectum the mucous membrane was covered with patches of ulceration and their tissues were broken down into a gangrenous mass. There was a small amount of localized peritonitis.

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HEMIANÆSTHESIA, CLOT IN POSTERIOR PORTION OF INTERNAL CAPSULE. ETC.

The following case is of interest in connection with the pathology and the physiology of the brain.

Patient was admitted on the night of November 12th in a condition of coma; the pupils were contracted and failed to respond to light; breathing stertorous; paralysis and anæsthesia of right side of face, and right upper extremity; anæsthesia of right lower extremity and right side of trunk; no hemiplegia or hemianæsthesia of left side.

The breath had a strongly urinous odor; about one ounce of urine was drawn from the bladder and was highly albuminous and contained granular casts.

The next morning there was a return of sensation to the right side of the face, and slightly also to the right lower extremity which now, however, was paralyzed. The coma deepened, œdema of the lungs supervened and death occurred in the afternoon.

At the autopsy the arteries, especially of the brain, were found to be atheromatous; the left ventricle of the heart was extensively hypertrophied; the lungs were congested and œdematous; the kidneys were cirrhotic.

In the brain, a small clot was found in the posterior portion of the internal capsule of the left side; involving both its anterior and posterior portions, as well as a portion of the condæ nucleus. On the right side of the brain there was the cicatrix of an old clot, which involved the posterior portion of the internal capsule and extended between it and the condæ nucleus and involved, to a limited extent, the optic thalamus of the same side.

No history prior to admission could be obtained.

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PHLEGMASIA ALBA DOLENS. PYAEMIA. EMBOLIC PNEUMONIA.

Elizabeth V., æt. 35. Admitted October 13th. Patient has had six children; no trouble in any confinement except the last, that being tedious and complicated by retained placenta. Two days before her last labor she suddenly felt a sharp pain in the right leg, which was soon followed by a swelling, commencing in the groin, and gradually involving the whole limb, which grew painful and difficult to move.

On admission, patient's general condition appeared good, though her temperature was slightly increased. The whole right lower extremity was swollen, tense, elastic, and hyperæsthetic. The pain was most marked along the saphenous, popliteal, and femoral veins, and the latter could be distinctly felt, hard and cord like. The left limb presented the same appearance as the right, but the abnormal condition was less marked.

Turpentine fomentations were applied to the limbs, and tonics and stimulants ordered.

[ On the 3d day after admission, patient suddenly became worse, and complained of severe pain in the chest, and two days later she gave the physical signs of embolic pneumonia. Whiskey and quinine were ordered and were replaced two days later by sulphocarbolate of sodium in 20 grain doses.

The pneumonia resolved on the 12th day after its advent ; during the same period her limbs improved so that the turpentine fomentations were replaced by simple bandage and on the 16th of November the patient was discharged, cured.

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### PERISCOPE.

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#### THE TREATMENT OF ANKYLOSIS OF THE KNEE—BY SAMPSON GAMGEE, F.R.S.E.

In consultation with Mr. E. P. Turner, I was requested on the fourth inst. to visit a delicate youth, aged 15, whose left knee had been immovable for many months. The leg was at a right angle with the thigh, and the head of the tibia slightly displaced backwards. The joint could not be moved in any direction. Two days afterwards, while the patient was under ether, I attempted forcible extension, with the only effect, at first, of making very tight all the tendinous structures about the joint. With a tenotome I successively divided all the ham-strings, including the ilio-femoral ligament, and, with the assistance of Mr. Turner and my dresser, Mr. E. Johnson, at once straightened the limb. To judge from the force employed, and from the successive loud cracks, the adhesions must have been in great part bony. The joint was wrapped in cotton-wool, and a plaster of Paris case applied. I did not interfere until the tenth day, when we found the wounds all healed, and the straightened knee cool and painless.

This plan of treatment, with the occasional addition of section of the rectus femoris, is one which I have repeatedly adopted in similar cases, since I first saw it practised at Naples, in 1852, by my distinguished friend Senator Professor Palasciano. As a general proposition it may safely be laid down that forcible extension of ankylosed joints, immediately after subcutaneous division of contracted muscles and tendons, is a method of treatment which admits of much wider application than it has yet received.—*The British Medical Jour.*

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#### DIURETIC EFFECT OF RESIN OF CAPAIBA.

Mr. D., aged 48, who had served in the army in India for eighteen years and had been a free spirit-drinker, but who had enjoyed good health till lately, was seized with abdominal pain and swelling early in July. He was admitted into Charing Cross Hospital, under my care, on August 19th. There was then marked ascites, the girth of the abdomen being 40½ inches. The quantity of urine passed daily was 45 ounces ; it was free from albumen. On August 22d, the abdomen measured 41 inches, and the quantity of urine was diminishing. He was ordered to have a scruple of acetate of potash and a drachm and

a half of infusion of digitalis, in an ounce of infusion of scopolarius, three times a day. On the 24th, the abdomen had increased in size to 41½ inches, and there was much pain from detension. The urine was still decreasing in quantity, now only 23 ounces being passed. Paracentesis was performed; 20 pints of fluid were removed, and the girth of the abdomen was reduced to 39 inches. The amount of urine passed rose to the normal standard.

In three days, the abdomen had again reached 40¼ inches, and the urine again diminished to 35 ounces. The bowels were opened regularly. He was now ordered fifteen grains of resin of copaliba, in an ounce of almond mixture, three times a day. The quantity of urine rose immediately. The amount passed during the first day on which the copaliba resin was taken was no less than 139 ounces—four times as much as on the previous day. For the next four days, the amount was upwards of 112 ounces daily, and, for the next five days, the average amount was 85 ounces daily. Coincidentally with this diuresis, the girth of the abdomen continuously diminished. At the end of ten days it measured only 38¼ inches or five-eighths of an inch less than after the operation, and the patient was very comfortable.

Unfortunately, however, a severe attack of hæmatemesis came on, and he rapidly sank. On *post mortem* examination, the liver was found to be exceedingly shrunken and hard, weighing only 37 ounces, very fibrous, and with little, if any, healthy tissue remaining. The spleen was large and hard. The kidneys were healthy. David B. Lees, M.D., M. R. C. P.—*The Brit. Med. Jour.*

#### FRACTURE OF THE SUSTENTACULUM TALI.

In an article on this subject in the *Archiv für Klin Chirurgie*, Band XXII, Abel says that three somewhat rare forms of fracture of the os calcis may be distinguished. 1. Transverse fracture of the posterior part of the os calcis has been known since 1722, and is usually caused by sudden contraction of the muscles of the calf. 2. The knowledge of the second form, splintered fracture of the os calcis, dates from 1842. In it the longitudinal splitting prevails, and the anterior process is broken up into a number of fragments. The fracture is caused by falls on the sole of the foot or the heel, very rarely by direct violence. 3. Isolated fracture of the sustentaculum tali is, as regards cause and symptoms, to be treated as a fracture *sui generis*. The author relates three cases of such fracture which came under his observation. One of them was complicated with injury of the head, and was fatal; the other two were first recognized at periods of three years and ten weeks respectively after the injury. The fracture may occur in two ways. As the sustentaculum tali has to bear almost the whole weight of the body in the erect position, a fall on the sole is easily followed by a fracture of this process of bone. In this form, the fracture forms only the first stage of smashing of the entire bone, which is produced by continued application of the same force. Secondly, the sustentaculum is fractured in forced supination of the foot, which must then support itself strongly



against the talus. The last named manner of origin gives cause to an extraordinarily characteristic symptom. If the injured person endeavor to walk a few steps, the original varus position of the foot is suddenly or gradually changed to a very distinct valgus position. At the same time, the astragalus with the tibia is pushed somewhat backward, so that the distance between the posterior border of the malleoli and the tendo Achillis is diminished. The tension of the ligaments between the tarsal bones became so great in this injury of the foot, in consequence of the loss of the support afforded by the sustentaculum, that the pain is unbearable, and walking and standing become impossible. Crepitation and abnormal mobility may be present, but are easily masked by the extravasation of blood, which is generally considerable. A sufficient consideration of these symptoms will prevent the injury from being confounded with splintered fracture of the os calcis, fracture of the fibula, of the internal malleolus, or of the astragalus, or dislocation of the astragalus and distortion of the foot. The prognosis is not unfavorable, if proper treatment be applied; but the tendons attached to the sustentaculum may remain weak for a considerable time. Careful replacement and well-fitting bandages are the best means of preventing further disturbances.—*The British Med. Jour.*

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#### WOUND OF THE CHEST WITH PROLAPSE OF THE LUNG.

A Völkel (*Berliner Klin. Wochenschrift*, No. 7, 1878) relates the following case. A young man aged 20 was stabbed in the left axillary line in the eighth intercostal space. When Dr. Völkel saw him some hours afterwards, the opening was closed by a hernia of the lung as large as a pigeon's egg. It was stated that at first air passed in and out of the wound, and that this was followed by much hæmorrhage; this was confirmed by the presence of a rather considerable pneumothorax on the left side, and by dulness of the percussion-sound from the base of the left chest upwards. Reduction being prevented by the tight nipping of the neck of the prolapsed portion, iced compresses were applied. At the end of three days the fever had disappeared. Fourteen days after the injury the air and blood in the left chest were almost absorbed, and the patient felt well. For some days, the hernia of the lung was somewhat increased in consequence of the paroxysm of cough; it did not, however, slough, but soon became covered with abundant granulations, and gradually contracted, so that healing was complete at the end of five weeks. The author points out the analogy between the course of this case and that of unreduced omental hernia.—*The British Med. Jour.*

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#### OSTEOGENOUS SARCOMA IN CHILDREN.

In the *Fahrbuch für Kinderheilkunde*, Band XII, W. Ost relates some cases of sarcoma of bone which he has observed in children. The subject of the first case was a girl aged 9, who had a round-celled and spindle-celled periosteal sarcoma involving the lower and middle

thirds of the left femur. The second case was also one of periosteal tumor as large as a child's head, involving the upper tibial epiphysis of a boy aged 6½. In neither case could any cause be ascertained. In the third case, one of sarcoma of the nasal bones and upper jaw, the origin of the tumor was attributed to a blow with a hammer, which the patient, a child four years old, had received a month before the time when the tumor, then the size of a walnut, was first recognised. Extirpation of the tumor was followed by obstinate returns, and the child died of general infection. To these cases, Ost adds forty others of which he has found records. Of thirty-two cases of periosteal tumor the bones of the skull were affected in eight cases, the jaws in ten, the clavicle in one, the humerus in two, the metacarpus in one, the spinal column in one, the pelvic bones in two, the femur in four, the tibia in two, the fibula in one.—*The British Medical Jour.*

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CASES OF STRICTURE OF THE URETHRA TREATED BY THE AID OF SUPRAPUBIC INCISIONS INTO THE BLADDER.

Four cases bearing upon the revival of an operation mentioned by John Hunter: cases of intractable stricture of the urethra, in which, the bladder having been punctured above the pubes for retention, a catheter was passed through this opening into the bladder to the stricture, acting as a director towards which the stricture was divided into the perinaeum. The first two were cases in which the bladder was punctured above the pubes for retention. At a later period, the stricture was divided in the perinaeum, the position of the urethra in the further side of the obstruction being indicated by a catheter introduced by the suprapubic opening. Both patients made good recovery. The third case illustrated the difficulty of opening the urinary bladder when contracted and empty. After its puncture the patient, who did well so far as the mere operation was concerned, slowly sank from renal disease, and died from uræmic poisoning. In the fourth case, under the care of Dr. MacDougall of Carlisle, the preliminary puncture of the bladder above the pubes was followed by great relief; but the final operation upon the urethra was never practised, the patient's life being suddenly cut short by profuse hæmorrhage from an artery exposed at the base of an ulcer of the pyloric end of the stomach. These cases, showed the possible advantage obtainable from the operation which might be practised in certain rare cases. They also showed the difficulties it might be associated with, especially in attempting to open a contracted bladder, and the complications which, in such severe cases, might coexist.—*The British Med. Jour.*

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HYSTERO-EPILEPSY.

Mr. George Eastes read some notes of the cases of hystero-epilepsy which he had recently seen in M. Charcot's wards in the Salpêtrière. The first case was one of right side anæsthesia combined with color-blindness of the right eye, so that, when sheets of paper of several pronounced colors were seen by the right eye only, they were pro-

nounced to be white. When a horseshoe magnet was applied to the right arm the right side became normally sensitive, and the left side became anæsthetic, with color-blindness of the right eye. Pricks in anæsthetic skin bleed little. The girl was put into a mesmeric sleep, when she became generally anæsthetic. A second girl with hysterio-epilepsy was mesmerised, with similar results. A third girl was rendered cataleptic by a bright light. Movement of the finger over the skin of her limbs caused tonic contraction of the muscles beneath. These cases of hysterio-epilepsy were of great rarity, and occurred during the child-bearing period of life. The malady continued for years without being fatal. The fits occurred either spontaneously, or from peripheral irritation. The effects of the application of various metals to the skin were very curious and interesting, and opened up a new field in therapeutics.—Dr. Broadbent said that this series of cases was very remarkable. As to the application of metals to the skin, he had seen one in England which was cured by the application of brass.—Dr. Hewitt said with regard to the fits, that irritation of the nerves of the central portion of the uterus was often the cause of fits; and when fits were found with a flexed uterus they were removed by straightening the womb.—*The British Med. Jour.*

#### THE MOST EFFECTUAL METHOD OF CONTROLLING HIGH TEMPERATURE AFTER OVARIOTOMY.

Dr. T. G. Thomas N. Y. Med. L., Aug., 1878, after some interesting remarks on the history and value of clinical thermometry, Dr. T. figures and describes Dr. G. W. Kibbee's "fever cot." "The bed on which the patient lies consists of a strong, elastic cotton netting, manufactured for the purpose, through which water passes readily to the bottom below, which is of rubber cloth, so adjusted as to convey it to a vessel, at the foot." A folded blanket is placed on the cot to protect the patient's body from the netting, and at one end is placed a pillow covered with India-rubber cloth and a folded sheet is laid across the middle of the cot and about two-thirds of its extent. The patient is laid upon this, her clothing is lifted to her arm-pits, and the body enveloped by a folded sheet, which extends from the axillæ to a little below the trochanters. The legs are covered with flannel drawers and the feet with warm woolen stockings, and bottles of warm water are placed against the soles of the latter.

Two blankets are placed over her, and the application of the water is made. Turning the blankets down below the pelvis, the physician now takes a large pitcher of water 75° to 80°, and pours it gently over the sheet. It saturates this and percolates the network, is caught by the rubber apron beneath, whence it is discharged into the receiving vessel.

The patient now lies in a thoroughly soaked sheet, with warm bottles to her feet, and is carefully covered up with dry blankets. The water is only applied to the trunk. The affusion lasts from ten to fifteen minutes, and the water collected in the tub at the foot of the bed, after having passed over the body, is usually from 8° to 12°



warmer than when poured from the pitcher. The result of the affusion is tested by the thermometer at the end of every hour; if the temperature has not fallen, another affusion is practiced until the temperature falls to 100° or less.

The patient lies constantly in a cold wet sheet, which never becomes a fomentation; because as soon as it abstracts sufficient heat from the body to do so, it is again wet with cold water.

He has kept patients two or three weeks on this cot, enveloped in the wet sheet without discomfort, and with marked control over the animal heat.

Dr. Thomas does not propose by it to check peritonitis, or cut short septicæmia, but to rob these diseases of hyperpyrexia, to resist the primary assault in the hope of bearing up against a more prolonged but less violent siege.—*Md. Med. Journal*.

#### PRESSURE IN DISEASES OF THE UTERUS.

Prof. H. Taliaferro contributes a paper on this subject, to the Transactions of the Medical Associations of Georgia. To accomplish the purpose he designs, tampons of sheep's wool are used. The method of applying the tampon, is this: The patient must be in the knee-elbow position to extend and elongate the vagina, which is distended with a Sims speculum. Wool is preferred because of its porosity and elasticity, and because it does not harden and pack like cotton. The wool should be clean, carded and disinfected with carbolic acid. First one or two pieces of cotton saturated with glycerine are placed against the cervix; the pledgets of wool are then successively applied with dressing forceps, as firmly as the comfort of the patient will permit. The vaginal canal is filled to the pelvic floor, but not below it. The vaginal orifice should close over the tampon. The author claims that the therapeutical effects are: 1st. Diminution of blood supply and nutrition. 2d. Sorbefacent. 3d. Diminution of nervous action. 4th. Rectification of malposition. He commences by packing the vagina lightly at first, and permitting the tampon to remain in position only twelve or twenty-four hours; but, as tolerance is established, the tampons are made larger and allowed to remain unmolested for two or three days at a time. The results in the cases reported as having been thus treated, are certainly encouraging. They comprise cases of sub-involution, congestion, displacements and chronic inflammations. We give our readers the benefit of the suggestion.—*St. Louis Med. and Surg. Jour.*

#### TREATMENT OF HYDROCELE BY INCISION PERFORMED ANTISEPTICALLY.

Dr. Genzmer (Volkmann's *Klinischer Vorträge*, No. 135,) gives a list of sixty-nine cases treated in this way without a single fatal result, and with no excessive inflammation. The average durations of the stay of patients in the hospital was ten days. There was in one or two cases an elevation of temperature of more than three degrees.

The method is to open the sac by an incision from three to four inches in length. The testicle is then examined, and if there be cheesy orchitis the diseased portions are laid open and scraped out. The edges of the tunica are then stitched to the scrotum with catgut sutures. The testicle now appears lying at the bottom of a gaping wound. A drainage-tube is placed vertically upon the organ, and the edges of the wound partly approximated by one or two deep silk sutures to prevent the testicle escaping from the sac. Primary union of the walls of the sac takes place, and a slight granulating surface is left at the end of a few days to mark the site of the cut. The tube is removed usually about the fourth day, when the silk sutures are also taken out, and the dressing changed a second time at the end of a week. The wound is then dressed with benzoated cotton batting inside of a suspension bandage, and the patient discharged.—*London Med. Record.*

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#### EXTIRPATION OF THE KIDNEY.

On Thursday, the 7th of June, at the Leeds Infirmary, Mr. Jessup removed the left kidney from a child aged two years and three months. The first noteworthy symptoms were hæmaturia and irritation of the bladder, but several soundings for stone gave negative results. The child, however, lost flesh, and became more and more pallid. About two months ago a rapidly increasing tumor was discovered in the left renal region, and as the indications were those of malignant growth Mr. Jessup determined to cut down upon it, and, if possible to remove it. The incision was similar to that recommended for colotomy, but longer. When the diseased mass was reached the kidney was peeled by means of the fingers, and a whip cord ligature was passed around the vessels and ureter, and firmly tied. The remainder of the growth was afterwards stripped away, and the whip-cord left to drain the wound. The operation was a formidable one owing to the large size of the diseased organ and the free venous hemorrhage which followed the separation of the growth from the surrounding structures. When removed, the kidney weighed sixteen ounces and resembled encephaloid in appearance. The child was doing well on the 11th inst. There was no peritonitis, bowels acted freely, and the urine flowed abundantly and was not stained. There was no vomiting, the temperature was but little above normal, and the child partook freely of milk. Mr. Jessup has kindly promised to publish in due course a detailed account of the case. On going to press we learn that the symptoms in the case are all favorable.—*Lancet.*

**EXTROVERSION OF THE BLADDER—INSERTION OF THE ORIFICE OF THE URETERS BELOW THE TUMOR—ABSENCE OF THE VAGINA—DIRECT INSERTION OF THE CERVIX UTERI INTO THE EXTERNAL INTEGUMENTS—GENERAL DEFORMITY OF THE EXTERNAL ORGANS OF GENERATION—BY DR. D. MANUEL SERRANO, OF MEXICO\*—TRANSLATED BY E. C. GEHRUNG, M.D., OF ST. LOUIS.**

N. N——, aged 17 years, born in Mexico, daughter of healthy parents, neither of whom showed any deformity. Brothers and sisters were always healthy.

There was no umbilical cicatrix. A fungous tumor presented itself on the lower portion of the abdomen, formed by the inner wall of the bladder, measuring in its transverse diameter, 5 cm. (2 inches, and longitudinally  $2\frac{1}{2}$  cm. (1 inch.) It was of a purple color, increased by straining. It was irreducible, and covered with thin mucus mixed with blood and urine. At the periphery, it blended smoothly with the abdominal integuments. Beneath this tumor, in the mesial line, was found the neck of the womb, of normal size and shape, and also inserted in the skin of the abdomen. The os was seen slightly open, with a small amount of mucus flowing from it. The surrounding skin was directly inserted into the cervix, the lining of which resembled skin more than mucous membrane.

About  $1\frac{1}{2}$  cm. (about  $\frac{1}{2}$  inch) to either side and below the tumor of the extroverted bladder, was to be seen the orifice of both ureters, from which a constant trickling of urine took place, bathing and excoriating the parts immediately below, and propagating a urinous odor. This region was very tender to the touch. A fold formed by the junction of the vesical mucous membrane with the skin, covered these apertures.

In the neighborhood of and on the same plane with the cervix uteri, may be seen small integumentary folds—the probable rudiments of the vagina and clitoris—from which arise the labia minora, ranging from above downwards, and from within outwards.

Below this, and following the linea alba, is a raphe of 5 to 6 cm. (about 2 inches) forming the perineum. Still further down is the anus, presenting nothing abnormal.

From either side of the extrophied bladder, was seen a thick fold of skin extending with an external concavity to the sides of the anus, forming the labia majora, covered with plenty of coarse hair.

The absence of the pubic bones† can easily be verified by the touch, as on a level with the labia majora, the two bony extremities could be distinctly felt without perceptible ligamentous connection between them. The gait is undisturbed by the deformity.

As stated before, the urine trickled drop by drop from the orifice of the ureters.

At the age of 15 years, menstruation began and continued regularly

\*In reference to this article, the *Gran A Medico Quirurgica de la Habana*, August, 1878, says: This case has been observed by our Mexican correspondent, Dr. Serrano, and his description having been published in France without even mentioning the name of our friend, we find it our duty to remedy the injustice done to him, by giving it the greatest publicity.—*Translator*.

†Transverse rami of the pubic bones (?).—*Trans*.



up to date. The blood escaped directly from the os uteri, and in such quantities as to make the use of napkins necessary. Defæcations take place naturally and normally, and without great difficulty, although the forward direction of the anus would lead one to suspect such difficulty. The voice is not changed, it retains its natural timbre, contrary to what is observed in some individuals affected with this deformity. In all other respects this woman is perfectly formed; her breasts are even more voluminous than usual in virgins of her age; the same may be said of the muscles and other parts of her body. She is of ardent temperament, and enjoys the society of the other sex. Touching the cervix uteri produces voluptuous sensations.

Before we enter upon the treatment of this deformity we wish to draw a parallel between this and other cases of a similar nature observed by others.

This deformity has been designated by Chausier and Breschet, by the name of extrophy or extroversion of the bladder; it has also been called hernia of the bladder, prolapsus or inversion of the bladder.

To Devilleneuve we owe the correct description of the true character of this faulty conformation, he having recognized this tumor as formed by the mucous membrane of the bladder, and exposed the errors of the diverse theories of Huxham, Baxtorff, Castarra, Stalpart and Vander Wiel.

The case under observation is a good index to the cause of this deformity. Some have considered it as dependent on an arrest of the development of these parts during intra-uterine life, which appears to me the most plausible explanation, or, that (according to Roosa) a rupture of the symphysis pubis occurred. Some attribute it to the accumulation of urine in the bladder, when in the anatomical dissection, the tumor was found to be formed by the posterior wall of this viscus.

This case demonstrates to my satisfaction that the origin of this deformity depends on an arrest of the development as proved by the complete absence of the vagina and clitoris in connection with extrophy of the bladder.

This case is identical, anatomically, with those related by Lemery, Prestat Meckel, and others, and physiologically with that mentioned by Boyer.

What measures should be taken to relieve this monstrosity? What promise does the procedure of Gerdy, Roux, or that of A. Richard, modified for the sex, hold out? The unsuccessful results which followed the efforts of these distinguished surgeons have no tendency to urge us to imitate them, merely to meet with the same disappointment.

All that remains is to advise palliative measures. The use or construction of more or less ingenious receptacles for the urine, like that of jurine, present insuperable difficulties in our country; even in Europe no satisfactory results have been obtained up to the present time.

My master and friend, S. Hidalgo Carpio, in his "Compendio de Medicina Legal," 1877, p. 83, speaking of the physical capacity for marriage in women, says: The obliteration and complete absence of the vagina are equally causes of impotency. "The *obliteration*, whether

accidental or congenital, is not of necessity accompanied by the absence of the uterus. But the *absence* of the vagina is generally accompanied by the absence of the uterus also." The case before us, however, shows that even the complete absence of the vagina does not cause impotency, for reasons to be mentioned below, and that although the vagina is missing, the uterus is present.

Is this woman's condition an obstacle to marriage? The gentleman just named in his "Introducion al estudio de la Medicina Legal Mexicana," p. 80, says: "The laws do not make mention of other manifest causes of impotency, that should be considered as impediments to marriage, such as the total or partial absence of the vagina, extrophy of the bladder, &c."

In the case under observation the vagina is entirely absent, at the same time there is extrophy of the bladder; nevertheless the individual might have imperfect coitus and by repeated efforts the penis might even enter the cervix, as in those cases of urethral dilatation in obstructed vagina.

The sperm being ejaculated almost into the cavity of the uterus impregnation would not appear improbable, gestation might progress favorably and labor take place in a normal way, notwithstanding the extrophied bladder. Although the law would interdict marriage under such circumstances, yet one of its objects for the interdiction, procreation, could take place. The consideration of the dangers to which even healthy women are exposed during gestation and parturition, and more yet, the dislike that the husband would soon acquire of such a wife, and the consequent infidelity or divorce, would be powerful inducements to discourage marriage in this case.

I shall not occupy myself with the teratology of these malformations by arrest of development, as it would merely be a repetition of what has been said by others.—*St. Louis Med. and Surg. Jour.*

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## NEWS ITEMS AND NOTES.

**The Pelvis as a sign of Race.**—The characters of the pelvis of different races of mankind have been made the subject of investigation by Fritsch, of Halle, who arrives at the following conclusions from a number of measurements. The principal characteristic of the European pelvis is the transverse oval inlet and the distinct difference between the pelves of the two sexes. The negro pelvis is in general smaller, rather roundish, and has a narrow pubic arch. The pelvis of the Kaffir is slender, on the whole slightly developed, and differs little in the two sexes. That of Hottentots and Bushwomen is the smallest, and it is remarkable that the pelves of Bushmen children who have come under more civilized conditions showed an improved formation. The Chinese pelvis is said to differ little from the European. Of the Japanese, Wernich has described two forms; but, according to Fritsch, this description is not free from doubt. The characters of the Malay pelvis are very well-known. It has a remarkably small average weight. The inlet is roundish, the



sacrum more elongated, the iliac surfaces are large, and the pubic angle is wide. In the Australians, the conjugate is greater than the transverse diameter; the pelvis is small and light, and shows a distinct sexual difference. The American pelvises are very well formed, with wide inlet and diminished depth of canal. The author concludes that it is the influence of nourishment, occupation, etc., that favors the formation of a well-shaped pelvis in the European, American, and other races; while opposite influences lead to its deterioration, as among the Bushwomen. Whether certain habits of sitting, lying, etc., may explain the different sizes of the conjugate diameter, is not yet sufficiently determined.—*British Med. Jour.*

**A Case of Transposition of the Viscera.**—In a recent issue of the *Allgem. Wien. Med. Ziet.*, Dr. Jos. Schrank records a case in which transposition of the viscera was diagnosed in the living subject. The patient was a young woman, 18 years of age, in every respect well formed, of middle stature, of a healthy ruddy complexion, blonde hair and moderately fat. While consulting Dr. Schrank for a slight attack of bronchial catarrh, she happened to mention that, although she had enjoyed good health, her heart did not beat in its usual place. On examining her it was found that the thorax was of a symmetrical shape, broad and roomy, with the breasts moderately developed. With the exception of slight bronchial *râles*, the respiration was normal. The pulsations of the heart, which were feeble and not visible, were not on the left but on the right mammillary line, in the fourth intercostal space. The normal extent of cardiac dulness was found on the right instead of the left side. The sounds of the heart as well as of the great vessels were normal. On the left side there was resonance on percussion over that space which is usually dull; but this resonance passed at the fourth intercostal space into a dull sound which extended downwards as far as two fingers' breadth below the margin of the ribs. This dull space corresponded to the region occupied by the liver, for quite a clear sound was elicited on percussing the region on the right side in which that organ is usually situated. The spleen also was on the right side, but was not larger than natural. Moreover, the abdominal aorta could be felt beating on the right of the vertebral column. Hence in this patient the heart, the spleen, and the aorta were on the right side, and the liver on the left. It was likewise evident that the other viscera would be more or less displaced. The right lung had probably two, and the left three lobes; while some of the great vessels would also be out of place. Nevertheless, the patient was not subject to any palpitation of the heart, faintness, visceral congestions, or any other symptoms, nor did a physical examination reveal anything the matter with the heart.—*The Med. Press.*

**Cholera.**—The *Gaceta Medica de Cataluna*, of the 18th October, has the following alarming announcement:—Government persists in its negligence without furnishing any official information about the disease now reigning in Morocco, and the political press continues to issue contradictory news. From the facts we deduce that there is in reality



a recrudescence of the disease at Morocco, and probably at Gibraltar. From information we believe that the malady is probably cholera morbus. At Cassablanca on the 17th, 18th, 19th, September, there were 377 deaths out of a population of 7,000. The cholera has extended beyond the town; at Fez and Mequinoz there were 60 and 70 a day. At Gibraltar the consul of health has forbidden all arrivals from Cassablanca, and other infected points in Morocco. If the authorities do not take the greatest possible precautions the disease may be propagated. — *The Medical Press*.

**Hypodermic Injection of Salicylic Acid in Erysipelas.**—Prof. Ferdinand Peterson, of Kiel, in a communication to the *Deutsche Med. Wochen.*, states that he has thrice arrested the progress of erysipelas by injecting a concentrated solution of salicylic acid under the healthy skin surrounding the diseased part. Several such injections were made simultaneously in each of the cases. He does not, however, positively assert that the good effect was simply owing to the operation. — *Lancet*.

**Treatment of obstinate Vomiting during Pregnancy by Dilatation of the Cervix Uteri.**—Dr. Murillo resorted to this remedy, as recommended by Dr. Copement, of Norwich. He introduced the finger into the cervix as far as the internal os kept it there for two minutes; the cervix was thus dilated four different times, at intervals of one or two days, and morphia given to produce sleep, which did not have the desired effect. At the end of one week the improvement was marked, and in eleven days a perfect cure was effected. — *Londer Med. Record*.

**Cases Treated by Martin's Elastic Bandage.**—Two cases illustrating the good effects to be obtained from the use of Martin's bandage. One was a case of varicose ulcer, which healed in a few days and remained well. The patient himself managed the application of the India-rubber. The second was a case of chronic effusion into the knee-joint, with a rheumatic history. The limb could not be raised from the bed when the bandage was first applied; but, a few days later, he was able to walk down into the hospital square, and the effusion into and thickening of the tissues of the joint had subsided. So far as his present experience went, Mr. Geo. W. Callender thought that these bandages would prove of great use in hospital practice. — *The British Med. Jour.*

# THE HOSPITAL GAZETTE

AND

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## LECTURES.

### CLINICAL LECTURE ON RACHITIS, WITH LOBULAR PNEUMONIA.

BY

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(Reported for THE HOSPITAL GAZETTE.)

GENTLEMEN:—The child which I now show you comes to us with the following history:

His name is James K.—, and he is fourteen months old. He has always been a delicate child, according to his mother's account; and when three months of age cut his first teeth, the upper incisors. During July and August last he suffered from the same trouble as at present; although in the meanwhile he has been much better. At the present time he has some fever, especially at night, and also a loose cough, with "a rattling on the chest;" and it is about three weeks since he became worse again. He was nursed at the breast up to the time he was one year old; and his bowels are now constipated. On inquiring of the mother, I find that the cough first commenced last winter, when the child was very young, and that he has never been altogether free from it since. The temperature, I may remark, is now  $100\frac{1}{2}$ ; and my assistant informs me that it was an attack of broncho-pneumonia from which he suffered during the summer. Ever since then the cough has been quite troublesome, and three weeks ago there was a return of the same symptoms which characterized that. One very noticeable fact in the case is the early dentition. Strange to say, the mother, (and she is the first one that I have seen here, certainly for five years, ignorant in regard to this point,) does not know how many teeth her baby now has; but at all events she is positive that it cut its first teeth at the age of three months, and that they were the upper ones.

Now let me ask, how does this child impress you? Would you suppose from its looks that it is healthy? Some one remarks that it has not much color. Yes, that is a prominent characteristic; and we may

start out, therefore, with the fact that, for some reason, sanguification is deficient. But, again, you have heard that the child has coughed nearly all its life, and this is a fact also that needs explanation. Let me inquire then, to what this might be due? The answer I get is, "Bronchitis of long standing." Well, if this is due to bronchitis of long standing, it becomes necessary in the next place to examine into the causes likely to produce this. I hear it suggested that it might have originated in the former pneumonia. But this cannot be so; for it has been distinctly stated that the cough commenced long before the pneumonia of last summer. The whole history, as well as the present condition, of this child deserves the most careful study in one part; and when this has been given it, I think all the light that is requisite will be thrown upon the matter.

To go back to the earliest part of its life, we find, in the first place, something abnormal about its dentition; that is the first teeth, and those the upper incisors, appeared at the age of three months. Now such a phenomenon as this indicates one of two things.

First, premature ossification of the bones of the skull, or secondly, (the reverse of this, an abnormally softened condition of the bones. This is the case in the disease known as rachitis; but, as a general rule, there is great delay in the appearance of the teeth in this affection. If, however, they should appear prematurely, as in this instance, it is equally unfortunate; for the teeth are apt to decay at a very early date. That there has been no premature ossification here is shown by the condition of the anterior fontanelle and the sutures.

This, I would have you aware, is a very common-place case. There is nothing remarkable about it whatever; but, although so common-place, it assumes importance and interest when we consider that unless an appropriate plan of treatment is adopted here, the mother may have to bury the child at no distant date. A great deal depends, therefore, on a correct diagnosis being made, and the appreciation on the part of the physician of the dangers to which such a child as this is exposed; for if this is understood, the chances are that it may be carried in safety through this very critical period of its life. We may find it, then, an exceedingly interesting case after all; notwithstanding the fact that many students are accustomed to regard such as entirely common-place for them to waste their valuable time over. It is in truth one of a numerous class of cases which you will meet with very frequently in practice, and I propose now to give you some idea of its prominent characteristics.

The first thing of importance to recognize is, that the child has been rachitical from the beginning. It is probable that we shall find here that this is due to some hereditary condition; or, possibly, as is often the case, it may have resulted from some mistake in its feeding. But whatever the cause, there can be no possible doubt that this child is the subject of rachitis. As a result of the condition, and one of its first manifestations, we have had the premature dentition to which allusion has been made. It is very common in such cases for a few teeth to make their appearance very early, and then that there should be a long interval; after which a few more come out, and then



there is another long interval. It is an actual fact here that the teeth are already beginning to decay; although the child is as yet only fourteen months old. This is undoubtedly in consequence of the general softened condition of the cranial bones.

But there are plenty of other evidences of trouble. The hair, you notice, is very thin, and the head is disproportionately large for the size of the body. The anterior fontanelle is still quite large although in a child of this age it ought to be closed, or nearly so. The veins both upon the head and upper part of the trunk are very large, and stand out prominently upon the surface; from which we conclude at once that there is an impediment to the circulation within. On making percussion about the centre of the chest, we find that there is considerable dulness over the *manubrium sterni*, and all the way up; and this is because there is something diseased behind it. In young children the thymus gland is apt to remain very large, and dulness in this locality ordinarily indicates simply that the thymus gland is still unreduced in size. Normally, this reaches down to, and even covers one-third of, the pericardium. But here the dulness is so marked that it indicates something else in addition. In rachitical children the bronchial and tracheal glands are exceedingly apt to become large, and especially in the vicinity of the bifurcation of the trachea; and such dulness as this is always a sign of swollen lymphatics. As a consequence of this, tracheal and bronchial catarrh results. In such children, when young, constant mucous râles are found; but without any elevation of temperature ordinarily. Some of the hyperæmia incidental to this catarrhal condition is very apt to extend downward into the smaller bronchial tubes, and in consequence of this, broncho-pneumonia will probably result. The small tubes almost necessarily become choked up to a great extent, and hence there is a collapse of the smaller lobules; the condition corresponding to the so-called atelectasis pulmonum of the new-born. There is marked venous congestion, and we have what is known as lobular pneumonia. This is an exceedingly common condition in rachitical children, and all the various portions of both lungs may be affected at different times in the same patient. When such an attack is over, we never know where or when another one may become developed. In the present instance, as we have seen, the child has already suffered from such a pneumonia at least twice; and it is quite possible that it may have had other attacks, less marked, which may have passed altogether unnoticed.

Now, let us examine the chest a little more particularly. In front on the left side, in the infra-clavicular region, we find marked dulness on percussion, which is undoubtedly due to the condition of the lung just described; the trouble now being in the left lung. In the central portion of the chest there is moderate dulness, due to the causes previously mentioned, the large thymus gland and the swollen tracheal and bronchial lymphatic glands, while on the right side the percussion-note is perfectly clear. Behind, also, on the right side, resonance is normal, but on the left there is the same marked dulness as in front, and extending over a considerable area. It appears, therefore, that the principal seat of this last pneumonia is on the left side, and that it involves quite a large portion of the lung.

As to the treatment, there are several points to be attended to here. In the first place, there is a great deal of mucus in the bronchial tubes, although there is not much increase of temperature. We might give an emetic, such as turpeth mineral, sulphate of copper, or ipecac, and get rid of all this at once; but exactly the same condition would very shortly return, because we would not be treating the cause of the trouble. No one would ever think of giving an emetic in such a case as this unless the child were really choked up with the accumulation of mucus; in which case it would be of great service in affording relief. An appropriate expectorant, however, is indicated here, and in selecting it we should take care to decide on one that will neither interfere with the digestion or affect the circulation unfavorably. I should therefore advise you to particularly avoid antimony in any form, as well as squill, vinegar, and even ipecac. It might possibly be necessary to give a little ipecac occasionally; but as a general rule I would prefer to use camphor, benzoic acid, or carbonate of ammonia in such a case as this.

For the pneumonia it might be supposed that either iodide of potassium or iodide of sodium might be of service; but both of them would interfere entirely too much with the stomach—the latter, however, less than the former. Iodine in some form is undoubtedly very beneficial in such cases; but I believe the best way of administering it in them is to give the syrup of the iodide of iron. Iron is certainly indicated by the general condition of the patient, and the great advantage of this preparation of it is, that it is very rapidly decomposed in the stomach. Thus the pure iodine acts as an antifermentic, at once, and in such children fermentation and putrefaction is apt to take the place of normal digestion to a great extent. In order to counteract this, it may also be necessary to give some such agent as charcoal; and in ordering this you should always be very careful to specify *animal* charcoal, because it is not by any means a matter of indifference whether you give animal or vegetable charcoal. In former times medical writers seemed to appreciate the great advantage of the former more than they do at present; and if you will inquire at any gas-house, you will find that the manufacturers of illuminating gas invariably make use of animal charcoal on account of its vastly superior powers of absorption. I should say then, at all events, that this baby ought to have syrup of iodide of iron.

For the purpose of specifically counteracting the rachitic trouble, some authorities would tell you that you ought by all means to give the phosphate of lime. Whether this is really of service in rachitis, however, is at present a somewhat disputed point; and I hope on another occasion to speak at some length on the subject, though I cannot stop to discuss it now. It really seems like an indication to make use of phosphate of lime here, and so you might try it if you choose.

Finally, in a case like this, it is of the utmost importance that we should attend carefully to the hygienic surroundings of the child and look after its digestion especially, with the utmost watchfulness. In regard to its diet, we should avoid such articles of food as do not con-



tribute to the formation of bone; and among these may be mentioned rice, arrow-root, potatoes and similar things of this class. On the other hand such articles as barley, oatmeal, the crust of bread, toast, eggs, milk, and possibly farina, will no doubt be of service. I would caution you, however, in regard to the use of milk; because if it should not be digested it will certainly produce acids which, continuing in the stomach with the alkalies that you may give for the rachitical condition, (such as the phosphate of lime,) will carry them off by the intestines before there is, of course, any time for them to affect the system at large.

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### ORIGINAL ARTICLES.

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## THE SUCCESS OF WARM WATER IN THE TREATMENT OF PHLEGMASIA DOLENS.

BY  
A. H. GOELET, M.D.

Mrs. M., aged 25 years. Multipara. Was delivered with the forceps of her second child on the 21st of Oct., 1878. The midwife who first had charge of the case allowed the cord to be prolapsed for an hour before calling assistance, and in consequence the child was dead. On the second day after, in the morning, I found the temperature in the axilla  $105^{\circ}$ , pulse 120 and full, the abdomen rather sensitive, and she complained of intense cephalalgia. The mammae were not sore or painful, tr. belladonnae having been used locally from the first. Quin., sulph. gr. xx and morphia gr.  $\frac{1}{4}$  reduced the temperature to  $99^{\circ}$  by the following morning. As the bowels had not yet been relieved she took ol. ricini  $\frac{3}{4}$  ss which purged and vomited her during the afternoon and night, so that on the following morning (25th) she was quite prostrated, and again had a temperature of  $105^{\circ}$ . The mammae were full and sensitive to firm pressure, but not painful. Quinia and morphia, as before, reduced the temperature and she was feeling quite well on the following day. Some milk was taken from the breasts. Lochia natural. On the 27th the temperature was again  $105^{\circ}$ , but the mammae were much reduced in size, and the secretion of milk is becoming scanty. Quinine and morphine in same dose reduced the fever to  $99\frac{1}{2}$  and she was sitting up in bed next day. On the 29th she complained of slight pain in the right knee and there was a sensitive spot on the anterior aspect of the joint just to the inside of the patella. Temperature 102. This was attributed to cold and rubbed with some simple liniment. Quinine and morphine continued.

30th.—Knee more painful and swollen, though temperature is  $100\frac{1}{2}$ . The breasts have ceased to give any trouble and she had got up. There is no swelling or pain of any other part of the limb. Quinine continued, gr. v night and morning, and tr. opii given for the pain.

31st.—She appears better, but the knee is worse. Temperature  $99\frac{1}{2}$ .

Nov. 1st.—The foot, leg and knee presented unmistakable evidence of phlegmasia dolens, being painful, swollen, tense, glistening, white, and pitting only on long pressure; temperature of the limb notably lower than that of any other part of the body.



The treatment recommended by Dr. Barker in his work on Puerperal Diseases was commenced at once, viz.: rubbing the limb towards the body for 15 minutes every six hours, then wrapping it in cotton batting, and enveloping the whole in oil silk. Tonic.

At the end of two days the foot and leg pitted easily on pressure and were not painful, so a flannel bandage was applied up to the knee, but as that remained the same it was treated as before.

*Nov. 5th.*—The swelling in the foot and leg has disappeared, but the knee remains persistently swollen, with a dull, heavy, aching pain, being acutely painful only at the point above mentioned when pressure is applied.

*Nov. 6th.*—The flannel bandage extended to the knee also, which remains greatly swollen and very painful.

On the 16th the knee remaining persistently the same after trying everything, including liniments of all kinds, and salicylic acid internally, I concluded to try hot water; which I did in the following way, viz.: The foot and leg to the knee were bandaged with flannel as before; then the knee was bandaged with an ordinary muslin roller saturated with hot water and covered with oil silk, this to be kept wet and reapplied every 2 hours.

On the 18th 2 days after there was marked reduction in the size of the knee, and the pain was entirely relieved. Three days after this the swelling that remained was scarcely perceptible, and it continued to improve rapidly from this time.

Although my experience with hot water in this affection is limited to this case, I feel so satisfied with its value, that I shall hereafter use it in every case of phlegmasia dolens from the first.

I am indebted to Dr. Frank H. Hamilton for having first called my attention to its value in other affections, and have often had reason to thank him for it.

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## HOSPITAL RECORDS.

### PRESBYTERIAN HOSPITAL, PHILADELPHIA.

SERVICE OF H. LENOX HODGE, M.D.

Reported by DR. F. M. LLOYD, HOUSE SURGEON.

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#### ULCERATION OF BONE FOLLOWING AN AMPUTATION IN WHICH THE LIGATURES WERE ALLOWED TO REMAIN.

Ellen Brown, a girl of fourteen years of age, was admitted to the hospital on December 28th, 1875, with an ulcerated stump, the result of an operation at the middle third of the leg. The leg had been amputated at another hospital just one year previous, for extensive disease of the bones of the foot. She had, apparently, made a quick recovery from the operation. The wound had so far healed that she was discharged in three weeks after the operation. It turned out that the ligatures used in the operation were cut off at both ends and sewed up inside the flaps.

Some time after her discharge from the hospital the wound broke out afresh and resisted all measures employed to promote healing.

During the time that she was in the wards of the Presbyterian Hospital, six or seven ligatures were removed from the stump.

The stump still remaining unhealed, it was decided to open it and resect the bone. This was done by Dr. Hodge on March 7th, 1876. The end of the tibia was found to be very much ulcerated; so much so, in fact, that the little finger could be easily introduced through holes in the shaft of the bone and protruded at its extremity.

The incision was made on the inside of the leg and was carried well down to the bone, the tissues being dissected carefully away. A portion of the periosteum was dissected off from the tibia and fibula and retained. About three inches of bone were removed. The whole of the original flaps were retained. No artery of any size was divided in the course of the operation.

The girl rallied perfectly from the operation and was discharged a month later with the stump entirely healed.

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## PERISCOPE.

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### SYPHILITIC PHTHISIS.

Dr. Colomiatti, in a memoir read before the Turin Academy, expresses the view that syphilis and tuberculosis are essentially different, and that the occasional presence of true tubercle in syphilitic products is no proof of the identity of the two processes. They are only similar; yet it is very possible, even in the lungs, where the similarity is the greatest, to distinguish syphilis from tuberculosis. The most usual type of pulmonary syphilis is interstitial pneumonia the characteristic signs of which are described by Dr. Colomiatti to be the following: The interfundibular and interalveolar septa of vascular connective tissue appear to be wanting or greatly reduced in diameter. (As regards the alveoli, this often occurs in the physiological state.) Around the bronchi there are cell-infiltration and induration, the cells are round and oval, deficient in protoplasm. In addition, the indurated tissue contains fusiform and stellate cells, connected with giant-cells infiltrated with pigment or with fat. The portion of the peribronchial tissue which has not undergone induration is like young connective tissue granulation-tissue). The process does not remain interstitial; it gradually attacks the inner surfaces of the infundibula and the alveoli, and the epithelium of the latter undergoes fatty degeneration. So long as the peri-bronchial tissue is alone diseased, the expectoration is very scanty, although a change in the parenchyma of the lungs may be detected by percussion, and there is much oppression. The second type of pulmonary syphilis is catarrhal pneumonia. In this, the infundibula and alveoli appear filled with epithelial cells; they also contain giant-cells, which fill the greater part of the alveoli. Wandering cells also are not wanting. The vessels of the infundibula and alveolar septa are over-charged with blood when the cells have not yet undergone degeneration; after fatty degeneration of the cell-elements, caseous deposits and obliterated vessels are usually found.

The presence of syphilis and not of tuberculosis in these cases is shown by the circumstance that in them miliary tubercle of the peritoneum is never met with. So-called spontaneous tuberculosis (chronic catarrhal pneumonia) may, indeed, be produced in a rabbit by inoculating the secretion of a syphilitic sore; this, however, by no means proves the identity of the two processes, since in this artificial tuberculosis the important characteristic of pulmonary syphilis, its interstitial progress, is wanting. A combination of the two processes is indeed possible, and in the tuberculosis runs its usual fatal course.—*Wiener Medizin Wochenschrift*, Nov. 28, 1878.

#### SCLEROSIS OF THE SPINAL CORD, AND THE RESULTS OF MYELITIS.

E. Leyden gives, in the *Charité Annalen* for 1878, the results of some experiments on the artificial production of sclerosis of the spinal cord with a view of determining, as far as possible, whether it is to be regarded as a special form of chronic myelitis, and what are its relations to acute myelitis. By injecting a few drops of Fowler's solution into the spinal cord of dogs, he was able to excite violent inflammation. One of the animals operated on survived fourteen months; notwithstanding total paralysis and contracture of the hind limbs, its general health was good. After the animal was killed, a careful examination was made. The spinal cord at the seat of operation was very thin, and was covered with a thick layer of fat; in the substance of the anterior cornua of grey matter was a cyst; having its origin in the softening of the tissue; there was also found a focus of rarefied matter, consisting of loose connective tissue with dead nerve-elements; and in the neighborhood of the focus of softening, in the parts which at the beginning of the process were swollen and infiltrated with cells, was a tough sclerotic net-work containing only scattered nerve-fibres, without nucleated cells, but with some stellate cells and single nuclei. The muscles of the hind leg were the seat of the interstitial fatty growths; the muscular fasciculi had almost disappeared; the motor nerve roots were atrophied; the degeneration extended upwards in the form of a narrow strip in the posterior columns as far as the cervical enlargement. The sclerosis, arising from acute myelitic processes or produced by experiments on animals, corresponds to the sclerosis observed in the human spinal cord, and appears to be an ultimate product of those inflammations of the spinal cord which, without essential destruction, lead to infiltration, and subsequently to atrophy.—*The British Med. Jour.*

#### OVULATION WITHOUT MENSTRUATION.

The relation of the discharge of ova to menstruation and of menstruation to the discharge of ova is a question to which considerable attention has in recent years been directed. It has been shown repeatedly by anatomical examination that menstruation may take place without the occurrence of ovulation, but similar evidence has hitherto been wanting in favor of the belief that ovulation may take place without menstruation. The opinion that ovulation may take place without menstruation has been based upon the fact that women



who have never menstruated have borne children; but this was not satisfactory, inasmuch as the objection may have been raised that the woman would have menstruated had not conception taken place—that, in fact, the occurrence of conception prevented that of menstruation. M. de Sinety has, however, set the question at rest by anatomical evidence. Before the Société de Biologie he described the anatomical characters of the uterus and ovaries of a woman who had never menstruated. She was thirty-eight years of age, and with the exception of the menstrual flow, had presented from her tenth year all the symptoms of puberty. The uterus was externally of normal volume, but the cavity was formed almost entirely by that of the neck; the cavity of the body was like that of a foetal organ, and the mucous membrane presented the character of the infantile condition. Ovulation had been very active, for the ovaries presented many false corpora lutea.—*Lancet*.

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A CASE OF TUBERCULAR PELVIC PERITONITIS WITH TUBERCLE OF THE OVARIES AND SUPPURATIVE ENCYSTED METRITIS, IN A GIRL AGED SIX YEARS.

In the *Annales de Gynécologie*, June, 1878, Dr. Ch. Talamon relates the following rare case: Marie T., aged 6, was admitted under Dr. Triboulet, to the Sainte-Eugénie Hospital, with symptoms of tubercular meningitis. There was found, also, consolidation of the lungs at both apices. No symptoms drew attention to the abdomen, which was flat, excavated, and flaccid, as usual in tubercular peritonitis. The meningitis ran its course, and at the end of six days the child was seized with convulsions, and died. At the necropsy the usual appearances were found in the brain, and tubercular consolidation of both apices of the lungs. In the intestine, all the Peyer's patches were the seat of irregular ulcerations. The uterus was three times its normal size, and contained a clear green viscid fluid, like muco-pus; its cervical orifice was closed by tubercular ulceration. The Fallopian tubes were obliterated. The two ovaries were surrounded by thick caseous exudation. On removing these exudations, the ovaries appeared indurated, irregular, and enlarged to the size of the ovaries of a young adult. On section, they were found to be entirely changed into yellow cheesy matter. The microscopic examination revealed miliary nodules on the external surface of the ovaries. The portions of the tubes adjacent to the ovaries presented tubercular degeneration of the mucous membrane, whilst the uterine ends of the tubes remained normal.—*London Med. Record*, Oct. 15, 1878.

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THE ANTISEPTIC METHOD IN EXTRACTION OF CATARACT.

Dr. A. Gräfe, in the *Archiv für Ophthalmologie*, vol. xxiv., says that since May, 1877, he has used the following method in one hundred and fourteen cases of cataract-extraction. After subduing as far as possible any inflammation of the conjunctiva or of the lachrymal sac, a drop of a solution of atropia (one per cent.) was applied to the eye on the day before operation, and a short time

before the operation the eye was carefully washed with a two-per-cent. solution of carbolic acid. At the same time, the external surface of the lids and adjacent orbital region were carefully cleansed, and the eye, being kept closed, was covered until the operation with a sponge soaked in the carbolized solution. Before being used, the instruments were dipped in absolute alcohol, and dried on pure linen. During the operation, one sponge moistened with the carbolic acid solution was kept constantly at hand for use; and, after the operation, the eye was wiped with it. Atropia was dropped in; and the sponge was kept applied to the closed eye until all hemorrhage or formation of coagula near the wound or between its edges had ceased. As soon as the sponge was removed, lint charged with a four-per-cent. solution of boracic acid was applied, and over it a piece of fine oiled silk that had been dipped in the same fluid. Cotton-wadding and a fine elastic bandage completed the dressing, which was changed once in twenty-four hours during the first three days. During the first seven or eight days, the carbolized sponge was laid over the closed eye at each change of dressing. The exterior of the eyelids was also cleansed by the sponge. Water was not used for the first seven or eight days; atropia was generally applied from the third day. The total percentage of failures in the cases so treated was  $1\frac{4}{7}$ , while it varied from 5 to 6 in the cases operated on before the adoption of the antiseptic plan.—*British Med. Journal*, Sept. 7, 1878.

#### TWO VARIETIES OF SCIATICA—TWO KINDS OF PAIN—TREATMENT.

There are two varieties of sciatica, one in which the nutrition of the limb is unchanged, the other accompanied by atrophy of the limb. In the first class the neurilemma alone is affected, in the second, the nerve fibres are attacked by the inflammation and cause atrophy of the limb. There are two kinds of pain, one only present on motion of the limb, the other when the limb is at rest. In all cases the first element of cure is rest. To this in cases of the first class must be added blisters and hypodermic injections. The pain being allayed, dry fumigations should be used. Dry heat is better than douches of sulphurous or terebinthinate vapours. In default of the former, vapour douches give the best results.—*L'Union Médicale du Canada*.

#### IGNORED SYPHILIS.

Dr. Fournier, in a lecture delivered at the St. Louis *Gaz. des Hep.*, August 8, observed that the great frequency of cases of *sypilis ignoré*, and the practical importance of its study, induced him to bring it before his class.

A patient presents himself with what, after careful examination, appears to be a syphilitic affection, but on interrogating him, and cross-questioning him in every way, he stoutly denies ever having had the pox. Still, confident in the objective signs observed, specific remedies are administered, and in a few days the lesion, which had been menacing, and even progressing rapidly, is almost cured. The result renders the accuracy of the diagnosis certain. The patient has had syphilis

without knowing it, furnishing an example of *syphilis ignoré*. At first sight this appellation seems contrary to common sense, for so complex a disease, characterized by such multiple symptoms, can scarcely be supposed to pursue its course unperceived. And yet not only may this be so, but it frequently is so. In fact, the profession has ceased to take the denial of the patients into account, and treats their cases solely from the aspect they present. At St. Louis *syphilis ignoré* is of such frequent occurrence, that during five months of the present year, in Dr. Fournier's service alone, there have been twenty-eight persons the subjects of syphilis without being aware of it, and that when only counting tertiary syphilides and the most obvious cases. As is always the case there, the treatment has confirmed the diagnosis.

These cases are much more commonly met with among the common people than in the well-to-do classes, which is but a natural result of the differences in situation, education, and the care of the person. The aristocracy and mercantile classes are pretty well informed on the matter of syphilis by means of reading and conversation, and even by the advertisements in the newspapers. They keep a sharp lookout, and on the slightest alarm have the time and money to get themselves at once treated. It is quite different with the lower classes, whom the absence of education, carelessness, indigence, and their daily toil, expose much more easily to the occurrence of *syphilis ignoré*. It is also incomparably more frequent in women. A man is much more conversant with syphilis; he knows from his youth that this is his enemy, and he is often acquainted with it before being exposed to its dangers, "were it only by the classic visit to the Musée Dupuytren, which some fathers of families consider it a duty to make their sons pay on quitting school." Thus forewarned, men have much less chance of failing to recognize syphilis. But women live in complete ignorance of these things, to which they are utter strangers. How many honest women there are, and even mothers of families, who do not even suspect the existence of this disease! But this very ignorance, if they become the subjects of it, exposes them all the more to a non-recognition of their enemy. Of the twenty-eight cases above alluded to, twenty-two were women and six men.

Thus syphilis may remain ignored, and this may be explained by numerous reasons, the principal of which are: 1. That a certain number of cases of syphilis fail to be recognized because they have a non-venereal origin. In the eyes of most people the idea of syphilis is necessarily connected with an impure sexual intercourse; and when the disease is in any other part than the genitals, it is firmly believed to be due to something else. Little notice is taken of it, and it is allowed to run on until serious tertiary symptoms enforce the diagnosis. There are, in fact, many causes of non-venereal origin of syphilis, as contact with syphilitic children; domestic contagion, from the use of a pipe, spoon, etc.; professional contagion, as with doctors and midwives; contagion by surgical instruments or by certain operations, such as Eustachian catheterism, the use of the bistoury, the speculum, serre-fines, etc.; contagion by vaccination, etc. Any of these forms of syphilis may remain ignored, even by those whose occu-



pations ought to prevent their overlooking them. "In fact, doctors and midwives are often surprised in this manner. I knew a midwife who had a syphilide on her finger without being aware of its nature; and one of my fellow-students, now a very distinguished physician, had on his finger a well characterized syphilitic lesion for more than six months, which he regarded as an anatomical tubercle. If practitioners allow themselves to be deceived in this way, how much more are people of the world liable to overlook an attack of syphilis!"

2. Syphilis may remain ignored because its symptoms have been overlooked or its nature has not been demonstrated. The symptoms of syphilis, in fact, are not always so evident or special even that the practitioner can pronounce at once upon them. A well-marked case of syphilis, with chancre, bubo, roseola, alopecia, cephalalgia, articular pains, iritis, etc., may still be mistaken for another affection. The chancre, especially if superficial, may be overlooked, or mistaken for some trifling hurt, even in men, and especially in women when it is placed on the cervix uteri. Bubo, in its nature indolent, is generally ignored; and the syphilides, being unattended with pruritis, do not give rise to pain or itching. Roseola is almost always overlooked by the patient until it has been pointed out to him; and so on with the various other symptoms, which, when not overlooked, are attributed to various causes; so that, in fact, the syphilitic patient with the most perfect faith may easily believe that he is not a subject of syphilis.

3. Syphilis is the more liable to be ignored when the original symptoms are benign and the secondary ones have scarcely existed. A long silence follows this period, which has only been characterized by a more or less ephemeral roseola and a few patches on the throat; then, ten or fifteen years afterwards, some grave accident supervenes, which leads to the discovery of the diathesis.

4. In women syphilis is the more likely to remain ignored, since all that is possible is done to hide the nature of the disease from them. The husband or the lover entreats the surgeon to treat his victim without revealing to her the cause of her malady; and amidst this "true conspiracy of silence" she becomes cured of her *syphilis ignoré*.

The practical conclusion is, that there exists a certain number of cases of syphilis, the diagnosis of which must be arrived at exclusively from the character of the lesion under observation, in spite of the silence of their history and the denials of the patients. Whenever the practitioner finds himself in the presence of such a case, in which all antecedent is denied, he should submit the patient to a second and even a third scrupulous examination, comparing the signs present with those which might be furnished by other diseases. But, having convinced himself that the lesion is syphilitic, he should institute its specific treatment in spite of the denial and even the most earnest protests of the patient. The experience of his predecessors and daily clinical teaching establish his right and duty. "The science of the physician," in the words of Ricord, "is above the assertions of the patient." The doctor affirms and the patient denies; but there is infinitely more chance that the former will be found right.—*Med Times and Gazette*, Oct. 5, 1878.

## ADDISON'S DISEASE.

DR. JOHN WYLIE (*Glasgow Med. Journal*, September, 1878) describes a case of Addison's disease in a married woman, aged 39, who had noticed discoloration of the skin which had been coming on for twelve or fourteen months. She complained of general weakness, disinclination for exertion, palpitation, gastric irritability, and vomiting of a most persistent kind. She had had rheumatic fever six years ago. Her parents were healthy; her children were all alive and healthy; she was now pregnant. The skin was "smooth and soft, of a yellowish colour, but merging into a deeper shade in those places which are naturally the seat of pigment, such as the areolæ of the nipples, the axillæ, abdomen, etc." She died of rheumatic fever. The organs were all healthy, except the suprarenal capsules. The left was larger than the right, and on cutting through it, about a teaspoonful of yellowish-pus-like fluid escaped. The normal structure of the capsule was converted into hardened cheesy nodules, which here and there grated under the knife. The right capsule was small, containing more of the pus-like fluid but less cheesy matter.—*London Med. Record*, Oct. 15, 1878.

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## ON THE USE OF CHLORAL-HYDRATE ENEMATA.

Dr. Starcke, of Berlin, has a paper on the employment of chloralhydrate enemata in the *Berliner Klinische Wochenschrift* for August 19. He observes that there are great prejudices, especially in England, against the continued use of chloral, occasioned, probably, by the not unfrequent misadventures occurring in connection with its use in habitual drunkards. Last year Dr. Starcke himself fell ill of a chronic gastric catarrh, with great acidity of the contents of the stomach and considerable emaciation and prostration. The principal and most distressing symptom, however, was persistent insomnia, only half an hour to an hour's sleep being obtained at night. At the suggestion of his colleagues Dr. Starcke resorted to the use of chloral, but the irritable state of the stomach forbade its use by the mouth, and hence he determined to take it *per rectum*. An aqueous five per cent. solution of chloral was warmed to about 95° Fahr., of which he injected first 10 grammes, and after a quarter of an hour a further quantity of 10 grammes, so that in all 1 gramme (15½ grains) of chloral were thus taken. This was in a few minutes followed by a feeling of warmth, comfort, and repose, and lastly by sound sleep, which lasted uninterruptedly for five hours. In this manner Dr. Starcke continued the injection of chloral for five months, taking in all 120 grammes of the drug. Decided convalescence set in after almost the very first dose, which was followed every morning by a sense of vigour and a desire for food, without any headache or other discomfort. Nor did the efficacy of the dose of chloral diminish, and latterly even half the quantity, *i. e.*, 0.5 gramme, was sufficient. Frequently the attempt was made to obtain sleep without resorting to the chloral, but in vain, until within the last month, when Dr. Starcke found he could discontinue it altogether. This employment



of chloral *per rectum* has decided advantages in gastric irritability. Dr. Starcke tried twice to take it by the mouth, and each time it was after a few minutes completely rejected, and no sleep ensued. The absence of all unpleasant results when administered by the rectum is doubtless due to its undergoing no decomposition, as is generally the case when it comes into contact with the contents of the stomach. Of course the drug should be absolutely pure. The sensation of burning and tenesmus which at first follows an injection, may be materially obviated by well oiling the nozzle of the syringe. And since the site of the tenesmus is chiefly in the region of the sphincter, contact of the chloral solution with this part of the gut should be avoided by passing the injection pipe as high up as possible. And if the injection is made by one's self, the position on knees and elbows will be found the most convenient. It is also of consequence that the solution should be complete, and that it should be warmed to the temperature of the body; also that the dose required is a moderate and even small one as compared with that usually given by the mouth. Dr. Starcke has subsequently used chloral in the same way in various cases and with the same uniformly safe and favourable results. It seems especially applicable in the case of aged people, and in no case need the dose exceed one gramme (15½ grains).—*London Med. Record*, Oct. 15, 1878.

#### AMYLOID DEGENERATION.

In pronounced amyloid degeneration, says M. Cazalis, if there be at the same time albuminuria and diarrhoea, the surgeon ought to undertake no operation; but his intervention may properly be invoked if the most serious symptoms be only a progressive emaciation, and an easily recognized hypertrophy of the liver or spleen. At such a time a bold operation may alone, in many cases, save the life of the patient. It has been objected, says Giraldès in his *Clinique des Maladies des Enfants*, against the utility of resection of the hip, that the general state of coxalgia is one of prostration from suppuration. We have always to do with scrofulous patients in whom alterations of different kinds, tubercular or amyloid, of the lungs, the kidneys, the liver, and the bowels, dominantly impress their characters upon the case. Coxalgic children operated upon in these bad conditions are nevertheless ameliorated, and their general condition undergoes changes of such a nature as to presage a cure. Hence the conclusion: By putting an end to the suppuration you place the patient under better general circumstances, as a consequence of which, recovery may result. In stenosés, two sorts of degeneration may be observed; the one developing slowly like the amyloid; the other, consecutive to septicæmia, developing rapidly like the statocœles which follow certain intoxications—the phosphoric intoxication for example. This acute degeneration has still to be studied; but there already exists a sufficient number of cases (the majority will be found set forth in this thesis of M. Cazalis) to place beyond all doubt the relation between visceral stenosés and septicæmias. It is therefore of the highest im-



portance that in surgical diseases of long duration and in septicæmias, the clinician should have his attention fixed upon the viscera, and especially upon those so accessible to his observation, as the liver, the spleen, and kidneys.—*L'Union Médicale*.

## NEWS ITEMS AND NOTES.

**Oxide of Zinc in Diarrhœa.**—The value of oxide of zinc in diarrhœa has long been known, but is apt to be overlooked. Some recent reports on the subject have been made by Dr. Tyson, of this city, and Dr. Bonamy, of Nantes. The formula which the latter uses is—

R. Zinci oxidi, 54 grains  
Sodæ bicarb., 7½ grains.

In four packets, one to be taken every six hours.

In all the cases which he observed oxide of zinc produced rapid cure of diarrhœa. In fourteen cases observed by Puygautier the cure was even more rapid, since in only one case were three doses of the medicine required. The results are considered to have been more satisfactory, inasmuch as in several cases the malady had endured from one to many months, and other methods of treatment had not produced any improvement. Thus he concludes that, although by no means to be held as exclusive treatment, the employment of oxide of zinc deserves to be more generally known as useful in diarrhœa.

**Villate's Mixture in the Treatment of Sinuses.**—A report from the Charity Hospital, New York, in the *New York Medical Journal*, states that several deep sinuses have recently been under treatment in the surgical service, in which no necrosed bone could be found, but which proved intractable to heal. Villate's mixture was tried, first of half strength, then of full strength. In some of the cases it proved of value, in others it failed partially or completely. The case in which it proved of most service was one of deep sinus in the neighborhood of the hip joint. The original composition of the mixture was—

R. Liq. plumbi subacet. ʒj  
Zinci sulph. cryst.,  
Cupri sulph. cryst., aa ʒss  
Aceti vini albi, fl. ʒvjss.

The mixture was injected once a day, and proved a more satisfactory application than any other. Some patients complained of severe pain, others felt but slight inconvenience from it.

**Inhalation of Carbolic Acid Spray in Phthisis.**—At the Mount Sinai Hospital, New York city, the inhalation of carbolic acid spray in phthisis has been introduced, in order to test its efficacy. The spray was obtained from a solution holding two per cent. of the acid. The first case had fetid expectoration, with an average temperature of 102½°. The first effect of the inhalation was to increase to a marked extent the sputa, but at the same time to check the fetor.

The most important effect of the inhalations was to decrease the temperature from  $102\frac{1}{2}^{\circ}$  to  $101^{\circ}$ ,  $100\frac{1}{2}^{\circ}$  and  $99^{\circ}$ . In some of the cases carbolic acid acted as an irritant, giving rise to considerable spasmodic effects, and in these cases salicylic acid was substituted. The latter agent did not produce such a decided effect on the temperature, but its action on the fetor was equally marked.

**Murder of a Physician.**—Dr. Daniel Pierson, a physician of Hancock county, Ill., was called from his bed on Saturday night, by an unknown man, to attend a case about three miles distant. He saddled his horse and started, and an hour after, his lifeless body was found by the roadside, with an iron bar, the instrument of murder, lying near. Dr. Pierson was a trustee of the town of Augusta, and active in suppressing lawlessness, and it is believed he was murdered out of revenge.

**Medical Students in Germany.**—This winter shows an increased number of medical students at the German Universities. Vienna leads off, with 658; Würzburg comes next, with 475; then follow Munich, with 456; Dorpat, with 387; Berlin, with 346; Leipzig, with 335; Zurich, with 189; and the remainder of the twenty-six universities in which instruction is given in Germany with classes ranging from 40 to 150.

Prof. Erasmus Wilson, F. R. S., has handed to Mr. John Dixon, C. E., a cheque for \$50,000, in redemption of his munificent pledge to pay him that sum on the erection of Cleopatra's Needle on the banks of the Thames, in London.

**Death Rate in the Army.**—The Surgeon General reports the total number of deaths in the army during the year, from all causes, at 256, or about twelve in one thousand. Of these 121 died of disease, and 135 of wounds, accidents, and injuries.

According to recently published statistics, there are more deaf mutes, idiots and lunatics in Switzerland, in proportion to the population, and fewer people afflicted with blindness, than in any other European country.

**New Microphone and Stethoscope.**—At a late meeting of the Franklin Institute, in this city, Dr. Isaac Norris presented and described a new form of microphone, devised by himself, in which he employs a cylinder of wood or other light material, about 3" in diameter, and 4' long, placed horizontally, over either end of which is stretched a membrane, forming two diaphragms. To the centre of one of the diaphragms is attached a silk thread, which passes over a small pulley, and has suspended at its end a metal cone with a carbon point. This cone is made hollow, in order that its weight may be adjusted by adding small shot. Directly under the cone is placed a carbon rod, adjustable perpendicularly, so as to secure a very delicate contact. The electric circuit is completed through it, the cone, and a Bell telephone. This instrument is very sensitive to sound, and with

a stethoscope, connected with the cylinder by means of a flexible tube, was designed to aid in the study of the sounds of the heart and lungs.

**Effects of Publicity on Suicide.**—An Italian medical society which meets at Pisa, recently sent a request to the various Italian papers to cease reporting suicides, stating that after careful study of the subject they had reached the conclusion that such publicity tends, at least in Italy, materially to increase the number of those who destroy themselves. The motive is sometimes imitation, sometimes a morbid thirst for notoriety.

**Phthisis in France.**—According to Prof. Trélat, the deaths in the Paris hospitals, from phthisis in its various forms, count up the appalling number of 25 per cent. of the total deaths from disease.

**Influence of Tobacco on Health.**—At the Hygiene Congress of Paris it was stated, during the discussion on the influence of tobacco on health, that Dr. Strohen, eighty-six years of age, the father of eleven children, and in the enjoyment of perfect health, has, for sixty-five years, smoked fifteen cigars daily.—*Gaz. Hebd.*, October 4.

**Lithotomy in India.**—Dr. Rai Rara Narain Dass Bahadoor, Calcutta, has performed lateral lithotomy 248 times, and only 17, or 1 in 14½ died. Cheselden lost 20 cases out of 213; Liston, 16 out of 115; and Guersant, 9 out of 60.—*Kings Co. Proc.*

**Homœopathic Progress.**—*The Boston Med. and Surg. Jour.* says that during the past summer a New York Homœopathic practitioner of the high potency school has actually been engaged in bottling mosquitoes in New Jersey, with a view to employing them for therapeutical purposes. At the request of a celebrated exponent of the Hahnemannian doctrine in England, they were to be sent across the Atlantic to him, preserved in Alcohol, and after their bodies had been duly potentized, it was expected that the internal exhibition of the remedy would be a sovereign cure for the mosquito-bite. That the preserved mosquitoes have been sent to England is an undoubted fact. Whether the result so sanguinely anticipated from the medicine will be realized, however, still remains to be seen.

**Poisoning from Paraffin Oil.**—The Liverpool coroner held an inquest last Friday, on the body of a female child, three months old, who was poisoned by paraffin oil. A medical man had prescribed lime water and milk for the infant, and the mother sent out to a chemist in Great Homer street for a pennyworth of lime water, but the assistant in the shop, a boy, gave paraffin oil instead, which was administered to the child. A verdict of "Death by Misadventure" was given, the jury very properly censuring the chemist for leaving his place in charge of a boy.

**Another Living Human Monstrosity.**—*Baptiste and Jacques Tocet.*—We are indebted to the *Lyon medical* for the following description of



a double creation now on view in the Rue de la Barre ; being that of an infant, æt. 12½ months, with two heads, four upper extremities, two thoraces, one abdomen, one penis, two testicles, one anus, and two lower extremities, and called Baptiste and Jacques Tocci. They were born on Oct. 4, 1877, at Loccana, in the arrondissement of Turée Haute-Italie ; their father, æt. 32, and mother, æt. 20, accompanying them, the latter being a perfectly formed, beautiful, and healthy Italian woman. This was her first pregnancy, which was perfectly normal. During the period of carrying she had not experienced any emotion or shock likely to exercise any normal influence in causing this strange formation. Her labor lasted eight hours the children presenting by the head. According to the testimony of the midwife, there was only one placenta and one cord. At the age of one month the twins were taken to Turin and examined by Professors Rubini and Mosso. At present Baptiste and Jacques Tocci are two strong children for their age, though neither have teeth. There are two heads, two necks, and two upper trunks absolutely distinct, so that in front and rear they seem like two individuals.

About a line starting from the insertion of the diaphragm the single character commences, and in front it looks as if it were one individual, though behind there are indications of two dorsa. The anus is unique, and some of the observations in connection with it are singular, for according to the evidence of the father, defecation takes place in each individual separately, noticed by the efforts of expulsion made by one of the upper heads without disturbing the other, so that there would seem to be two digestive tubes opening into a single rectum. Dr. Mosso found that the heart of Baptiste beat at the rate of 132 a minute, that of Jacques, 154. The most interesting part in connection with them are the nervous functions. The cerebral and spinal centres are distinct, and there are three hypotheses as to the distributions of nervous power in the lower extremities.

Baptiste and Jacques present a certain analogy with a double monster known under the name of Rita-Christina, observed by Geoffroy Saint-Hilaire, in Paris, in 1829, and reproduced by him in his Atlas. Most of our readers will remember Millie-Christine, who was lately exhibited in England. As Baptiste and Jacques Tocci increase in years interest will grow with their development, for there are many obscure points which can only be solved by time.

M. M. Galien and Kobayel indulge in this speculation:—"If these reach puberty, as they only have one genetic organ, how will it supply the wants of a double intelligence?" The twins have escaped the perils of the first 12 months of infant life, and may probably live to puberty, for, according to the historian Buchanan, a somewhat similar creation lived to the age of 28 years at the court of James IV.—*The Medical Press*.

**Suffocation by Coke Gas.**—On the police visiting a house in Clive Street, Liverpool, on Friday last, they found in one of the upper rooms the dead bodies of a woman and six children. There was no fireplace in the apartment, and there was evidence of a coke fire

having been made in an iron pan and placed in the middle of the room. The fumes arising from the coke, it is supposed, suffocated the unfortunate people. There was scarcely any furniture in the room, while the only food found was some remnants of oatmeal porridge.—*Medical Press.*

**Examination at the Royal College of Surgeons.**—Out of the twenty-eight candidates who presented themselves last week at the Royal College of Surgeons of England for the Fellowship, no less than seventeen failed to satisfy the Court of Examiners, and were referred for six months further anatomical and physiological study. This large proportion of rejections is one of the heaviest on record.

**Whooping Cough.**—Dr. Mannheimer (*Chicago Medical Journal and Examiner*, August,) reports nine cases of whooping-cough which recovered in four to seven days under the use of intra-laryngeal insufflations of equal parts sulphate of quinine and white chalk. Six of the cases were in the spasmodic, three in the catarrhal stage.

**College of Physicians of Philadelphia.**—Dr. Milner Tothergill and Robert Barnes, of London, have been elected associate members of the College of Physicians of Philadelphia. The number of associate Fellows is limited to twenty. The other British associates are Sir R. Christison, Sir J. Paget, Professor Acland, Drs. J. W. Ogle, Peacock, and Hughlings Jackson.

**Carbolic Acid Poisoning.**—A case of death produced in forty-five minutes by half an ounce of commercial carbolic acid is reported in the *London Lancet* for October 12, 1878. Complete collapse was caused in less than five minutes.

**Death in the Turkish Bath.**—In the *British Medical Journal* of October 12, is reported a case of sudden death in a Turkish bath, affirmed to have been produced by congestion of the lungs caused by the excessive heat.

**Transfusion.**—At the meeting of the Société Biologie, Dr. Brown-Séquard gave an interesting account of his experiments on transfusion. He had made use of different sorts of liquid for transfusion, such as normal blood, blood without its fibrine, and milk. In such case he found the results to be the same, but in the case of milk the quantity that it was necessary to inject was more considerable than in the others. Ninety-five grammes of blood was drawn from a dog, and were replaced by the same amount of milk. Shortly after the operation (about forty-five minutes) there was no trace of milk globules to be found in the blood, and the dog has continued in excellent health ever since the operation, which took place more than five months ago. M. Malassez found, upon examining the blood after the transfusion, a greater number of white globules than normal. In concluding his remarks, Dr. Brown-Séquard expressed the opinion that the liquid injected should be at least at a temperature of 10° to

12° C. It was preferable, he thought, to choose the arteries rather than the veins, and recommended the operation to be done very slowly, in order to allow the liquid injection to acquire the temperature of the blood. Transfusion also succeeded in animals when the blood made use of comes from a species of animals different from that of the one under experiment. It appears that Dr. Thomas, of New York, has tried the transfusion of milk on the living subject, and is convinced that it acts as well as blood.—*Lancet*.

**Cure of Onychia Maligna.**—Dr. Gaetano "*Jour. des Sci. Med.*," from "*Il Morgagni*" was called to a little girl 10 years of age who had suffered horribly for six months with peri and subungual ulceration of the right index finger. Having softened and raised up the nail as much as possible, he dropped a concentrated solution of morphia upon the sore, with which he kept it in contact a quarter of an hour. He then covered the diseased part with very finely powdered nitrate of lead and enveloped the finger with a bandage. The pain was almost immediately relieved, and the patient slept soundly that night for the first time in a long period. The bandage was removed at the end of five days, and the ulcer was found about one-half healed. The application was repeated and by the end of five days more complete cicatrization had taken place. In two other cases results as favorable were obtained by Dr. Gaetano, the applications being made more or less frequently as the case seemed to demand.—*Amer. Med. Bi-Weekly*.

*Ed. K. 11*



# THE HOSPITAL GAZETTE

AND

## ARCHIVES OF CLINICAL SURGERY.

A WEEKLY JOURNAL OF MEDICINE, SURGERY AND THE COLLATERAL SCIENCES.

EDITED BY

EDWARD J. BERMINGHAM, A.M., M.D., and FREDERICK A. LYONS, A.M., M.D.

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### LECTURES.

#### A CLINICAL LECTURE ON PERINEAL SECTION.

Delivered at the New York Hospital, Oct. 31st, 1878.

BY

H. B. SANDS, M.D.

Attending Surgeon.

GENTLEMEN:—Stricture of the urethra is a disease of paramount interest to the surgeon, whose resources are often taxed to the utmost, in the endeavor to afford the desired relief. Respecting its pathology and treatment, many conflicting views are entertained at the present day, some of which, in my judgment, are quite erroneous; and it will be my aim in this lecture, and in those which are to follow, to describe to you the various types of this affection, as I have been able to recognize them, and as illustrated by the cases that present themselves to us for treatment. By pursuing this method, I shall be able to offer you the advantages of clinical observation, and, at the same time, to make such comments on the several cases, as I think will be calculated not only to impart wholesome practical instruction, but also to guard you against the adoption of what I conceive to be unsound doctrine or unsafe practice.

The patient on whom I am about to operate, is a ship carpenter, 45 years old, who, thirteen years ago, slipped from the bowsprit of a ship, and fell astride the gunwale of a rowing-boat, receiving an extensive lacerated wound of the perinæum and urethra. Extravasation of urine, with retention, followed, demanding the use of a catheter, which was inserted with great difficulty. The patient was confined to bed for thirteen months, at the end of which time the wound in the perinæum closed completely. He continued, however, to have the usual symptoms of urethral stricture, and from this time onward, had frequent attacks of retention. Seven years ago, after an attempt had been made to pass a catheter, a perineal abscess formed, which broke, leaving a urinary fistula, which has remained open ever since. During the past six years, the greater part of the urine has escaped through the perineal opening; and, although attempts at catheterism

have been repeatedly made by various surgeons, none of these trials have proved successful.

On admission, the man was found to be suffering from chronic and incomplete retention, the urine escaping guttatum through the penis, and through a narrow fistula, opening about half an inch behind the scrotum, a little to the right of the median line. Considerable pain accompanied the straining and unsuccessful efforts made to evacuate the bladder. The perinæum was somewhat indurated, and a cicatrix close to the orifice of the fistula marked the site of the original wound. Examination of the urethra revealed the existence of an impermeable stricture—situated five inches and a quarter behind the external orifice—and some contraction of the urethra extending forward about an inch from the point of greatest obstruction; a sound, No. 22 F. being arrested four and a quarter inches behind the meatus. During the fortnight which has elapsed since the patient's admission into the hospital, many prolonged and careful trials to enter the bladder have been made, all of which have been unsuccessful. On several occasions, these manipulations, which were invariably conducted with the utmost gentleness, were followed by slight attacks of urethral fever; and at all times, they caused exquisite pain. Hot baths, and the internal administration of opium have been resorted to, but in vain, in the hope of facilitating the introduction of instruments through the stricture. At the present time, the bladder remains sufficiently distended to be felt above the pubes, and the patient is exceedingly anxious to be relieved of his distress. The urine has been examined microscopically, and found to contain a moderate amount of pus and mucus, but no renal elements. Apart from the disease thus far described, the man's health is good, and he seems to have a sound constitution.

We have here, gentlemen, an example of one of the worst and most intractable forms of urethral disease which the surgeon ever encounters; namely, an impermeable stricture of traumatic origin. Such strictures are usually the result of violence applied to the perinæum, injuring the urethra and the parts adjacent to it. Of course, any kind of wound may be inflicted in this region, but, most often, the perinæum is contused or lacerated by a blow or a fall. When the perinæum is struck by a blunt object, the urethra is most apt to be injured just anterior to the triangular ligament, which, being firm and resistant, favors yielding and laceration of the part in front of it; and not infrequently, when the violence has been great, the urethra will be found to be completely divided. Often, as in the present instance, the perineal tissues external to the urethra are likewise torn, and the urine escapes through the outer wound. Lesser degrees of violence will cause partial rupture of the urethra, or perhaps, simple contusion, with extravasation of blood beneath the mucous membrane.

In any case, provided the injury has been at all severe, the patient will gradually have retention of urine soon after the accident; this symptom being more or less urgent, according to the extent of the lesion. When the urethra has been merely contused, retention may be incomplete, and of brief duration; the patient soon succeed-

ing, by painful effort, in voiding urine tinged with blood. In such a case, the subsequent occurrence of stricture may often be prevented by appropriate management, which includes rest in bed, a spare diet, and the administration of diluents, until the danger of inflammation is past. Retention, if present, must be relieved by the gentle introduction of a catheter. But, when the urethral walls have been lacerated, the danger is greatly increased; and the formation of a stricture becomes almost inevitable. I say *almost*, because I believe that this occurrence may sometimes be averted. A simple wound of the urethra, especially if longitudinal, may heal, and leave the canal of its normal dimensions; but the chief danger arises from extravasation into the surrounding tissues, of the renal secretion, causing often severe and extensive inflammation. In the first attempt to void the urine after the accident, some of this irritating fluid will almost surely escape through the rent in the urethra into the neighboring connective tissue; while, if the urethra has been completely severed, usually no urine escapes from the meatus, all that which is expelled from the bladder being forced into the tissues around the wound, and, unless it finds a vent through an external opening, causing extreme infiltration. If the urethral laceration is limited, and surgical aid can be procured without delay, the timely use of the catheter may prevent urinary extravasation, with its disastrous consequences; otherwise, inflammation will certainly follow, leading to the formation of cicatricial tissue, or to abscess, or to sloughing of the infiltrated areolar tissue. According to the extent and violence of the inflammation thus occasioned, will be the final result of the primary injury. Sometimes merely a linear stricture; sometimes a callous stricture an inch or more in length; often a close stricture, complicated with one or more perineal fistulæ, will remain to indicate the previous mischief. In some cases, in which the patient survives a laceration of the urethra nearly, or quite complete, the urethra at the distal margin of the wound becomes obliterated, and all the urine subsequently passes through the perinæum. After severe injuries, the signs of stricture will often appear before the parts have healed; and, as a rule, in traumatic stricture, the effect follows the cause much sooner than in cases that originate in gonorrhœal inflammation.

I need hardly remind you, that in traumatic stricture, the trouble is due to the formation and contraction of cicatricial tissue, which in these cases, is always present, although varying greatly in amount in different instances. When not abundant, it causes simply a narrowing of the urethra, as indicated by the difficulty experienced in passing water, or in introducing a sound. On the other hand, when the cicatricial substance is copious, it may form large, hard masses, occupying the course of the perineal urethra, and extending along the fistulous tracts, if the latter are present. When the plastic material is deposited in large amount, but confined to the neighborhood of the bulbous urethra, a cylindrical, callous body may be distinctly felt through the perineal integuments, which sometimes slide freely over it. Between the two extremes, in which either nothing can be felt externally, or the perineal textures seem to be more or less completely consoli-



dated by plastic deposit, numerous gradations of organic change will be found in different instances. The point which I desire to emphasize is, that traumatic strictures are due to the deposition and subsequent contraction of adventitious or newly formed fibrous tissue; this material being identical in its properties with that which constitutes the dense cicatricial mat with after the healing of lacerated wounds or burns of the external parts. Similar tissue, it is true, forms in strictures of gonorrhœal origin; and occasionally, these prove exceedingly intractable. But, as a rule, traumatic strictures are exceptionally firm and resilient; and these characteristics warrant their consideration as a separate class, in which special modes of treatment are often required.

Respecting the management of traumatic stricture, I may remark that, generally, dilatation is not applicable to them, unless resorted to at a very early stage, when, perhaps, the disease may be said to be prevented rather than cured by this means. I shall have occasion to tell you in a future lecture, why I believe dilatation to be the best mode of treating the majority of urethral strictures, and why I am opposed to the indiscriminate cutting that has become so much the fashion here and elsewhere during the past few years. I admit, however, that dilatation is generally inadequate to the cure of traumatic strictures, which require to be divided either with the knife or with some instrument that is capable of rupturing the cicatricial tissue.

Passing now to the consideration of the special features of the case before us, I ask your attention to the fact that the stricture is impassable, or impermeable—these terms being synonymous. I here employ the word "impassable" in a conventional, and not in its literal sense. I have already informed you that the urethra is sometimes actually obliterated in consequence of a previous injury. In such a case, the canal would of course be literally impassable. But by an impassable stricture is commonly meant one that will not allow the passage of any instrument, however small. The urine may escape gurgling, or in a dribbling stream, from the natural orifice, proving that the stricture is permeable to fluids; but in consequence of the minute size, eccentric position, or tortuosity of the canal through the strictured part, no instrument can be made to enter it. The existence of this form of stricture has been denied by more than one eminent authority; thus, the late Mr. Syme, in advocating the operation of external urethrotomy upon a grooved staff previously introduced into the bladder, argued that whenever urine passed out through a stricture, an instrument could be got in; and he furthermore alleged that he himself had never been foiled in the attempt. The same statements were made by the celebrated Liston. But, like most unqualified assertions, they turned out to be untrue; and competent witnesses afterwards testified that both Syme and Liston were repeatedly disappointed in their efforts to enter the bladder; and were compelled to perform the operation of perineal section without a guide. Sir Henry Thompson, a deservedly high authority, is inclined to endorse the axiom laid down by Syme, and intimates very plainly that no stricture is impassable, except to an incompetent sur-

geon. He even goes so far as to propose that the word "impermeable" shall be dropped from the surgical vocabulary. Nevertheless, he confesses that, on several occasions he has been compelled to resort to perineal section without a guide. It seems to me that this simple admission is fatal to his argument. I think that, in this question, as in all others relating to science, the facts should be plainly and rigorously stated, without the slightest attempt at exaggeration. Now the fact is incontrovertible, that in a certain number of cases—a small number, I am glad to say—the most skillful and experienced surgeon, provided with the best and most delicate instruments, will fail, after careful, prolonged and repeated trials, to get any one of them beyond, or even into the stricture. Even after the urethra has been laid open in front of the contracted part, and the edges of the incision have been carefully held asunder, it is sometimes impossible to discover, on the closest examination, the course of the canal which is known to exist. Now if, in these circumstances, no instrument can be introduced through the stricture, you can readily understand the occasional failure to pass it by means of bougies or catheters inserted through the meatus, and guided merely by the sense of touch.

These facts have an important bearing on practice; for while you should be persevering in your attempts at catheterism, and not hastily conclude that you are dealing with an impassable stricture, you ought at the same time to be cautious in the use of instruments, lest you aggravate the mischief already existing. If you are firmly resolved to succeed in passing an instrument in every case, your resolution will cause you, now and then, to kill your patient. More than once have I known death to follow attempts at catheterism made by surgeons of acknowledged reputation. Such cases certainly ought to teach us a useful lesson. Moreover, in conducting these manipulations, you must always take into account the urgency of the symptoms, and the patient's ability to tolerate the contact of instruments. If the case will admit of delay, and the urethra is not over-sensitive, repeated trials may be made, and hours spent in the endeavor to insert a guide; for it will often happen that, either in consequence of variations in the size of the stricture at different periods, or from better luck at one time than another in the choice and direction of instruments, the surgeon will, after many failures, finally be rewarded with success. But if retention of urine be a prominent symptom, you cannot afford to wait, unless you relieve the bladder by tapping, as may sometimes be expedient. Again, you must never forget the remarkable sensitiveness of some patients to the contact of instruments, which, however gently employed, will cause exquisite suffering, and perhaps a sharp attack of rigors. Ether will obviate this difficulty, however; and indeed, no stricture should be pronounced impassable, until after an exploration has been made while the patient is under the influence of an anæsthetic. Still more serious are those cases, in which the urethra may be said to be impressible, rather than sensitive. The contact of bougies or sounds in them may not occasion much pain, but yet will set up severe constitutional disturbance, such as urethral fever, or, it may be, pyæmia. Within the past year a patient



who entered this hospital to be treated for urethral stricture, had an attack of fever, accompanied with thrombosis of the left iliac vein, in consequence of a single attempt, made by one of my colleagues, to pass a whalebone filiform bougie. The man had a narrow escape from death, but he finally recovered, and was cured of his stricture by urethrotomy.

Regarding the perineal fistula present in the patient before you, I would remark, that the escape of urine from its orifice indicates that it communicates with the urethra somewhere behind the stricture. Such fistulae are quite common in cases of close stricture, and almost always originate in an ulceration of the urethra, in consequence of which a small quantity of urine escapes through its walls, and sets up suppurative inflammation in the surrounding connective tissue. An abscess results, which, after having opened spontaneously, or otherwise, affords a vent for the urine, and afterwards degenerates into a fistula, this constituting a sort of safety-valve, and usually refusing to close unless the urethral obstruction is overcome. In the present case, there is but one such opening; often, however, several fistulae exist, terminating by orifices more or less remote from the urethra, but all of them communicating with it, either directly or indirectly. When short and wide, these artificial passages may, by allowing a free escape of urine, afford the patient a complete guarantee against retention; although they render his situation deplorable enough, neither urine nor semen escaping through the penis. But usually, they are, as in the present instance, long, narrow, and tortuous; permitting only an incomplete evacuation of the bladder, and favoring retention, which, when occurring, adds greatly to the gravity of the disease.

I need hardly mention that our patient's condition is one that demands surgical interference. Apart from the constant pain and discomfort attending the state I have described, it must be remembered that, unless relief is afforded, matters will go on from bad to worse, and death be the inevitable result. Infiltration of urine, retention, cystitis, hypertrophy of the bladder, dilatation of the ureters, pyelitis, renal degeneration, and uræmia, are formidable affections, one or more of which will be sure to complicate the disease already existing, and to hasten its fatal termination. Perilous and difficult, therefore, as is the operation I am about to undertake, it is justified by the alternative of certain, perhaps painful, death as the result of non-interference. As I have already told you, the man is willing to accept the risk of the operation, and desirous to have it performed without delay.

In deciding what operation shall be undertaken in the case before us, we have the choice between those which are palliative, and those which aim to accomplish a radical cure. Palliative operations are performed to establish an artificial outlet for the urine, while radical operations are intended to restore the natural direction of the current by overcoming the stricture. Should the establishment of a permanent fistula be deemed expedient, the bladder may be tapped, either above the pubes, or through the perineum: the opening being maintained by tying in a catheter during the healing of the wound, and by



subsequently introducing one often enough to obviate the tendency, which always exists, to closure of the artificial passage. Of the two operations mentioned, I give the preference to the latter, as being safer, and as ensuring better drainage of the bladder. The perineal operation consists in cutting through the perinæum in the median line, so as to open the membranous urethra immediately in front of the prostate gland. In certain cases, in which the disorganization or loss of the perineal tissues is so great as to preclude the possibility of restoring the urethral canal, this operation is one of unquestionable value, as the records of this hospital will attest. In Guy's hospital, in London, it has been frequently performed by Mr. Cock, who operates by transfixing the perinæum in the median line, with a double edged knife, the point of which is guided to the apex of the prostate by the left fore-finger held in the rectum. Mr. Cock does not admit the value of perineal section, and consequently finds a wide field for the performance of his own operation. In my judgment, however, this operation should be restricted to the worst class of cases, in which perineal section would be either very unsafe, or very uncertain in its results. In this category I would place cases accompanied with marked extravasation of urine, or with extensive destruction of the urethra, forbidding any attempt at restoration; also those complicated with renal disease, or with any other organic affection that would contra-indicate the performance of so severe an operation as perineal section. In all these cases, the safety and welfare of the patient will be promoted by simply establishing a free perineal outlet for the urine. The relief thus afforded is incalculable; and if the operation is preformed early enough, disastrous consequences may be prevented.

But I am a strenuous advocate for the adoption of radical measures in many cases of impassable stricture, whether of gonorrhœal or of traumatic origin; both experience and observation having proved to me the practicability of reestablishing the natural channel for the outgoing urine. I am personally acquainted with those who have survived such operations for many years, in the enjoyment of excellent health, both local and general. I therefore maintain that radical operations need no apology for their performance; and will now briefly enumerate those which I consider the most important. They may all be included, however, under the designation of perineal section, or perineal urethrotomy without a guide. My discourse will perhaps be more intelligible, if I begin by describing to you the operation of perineal section in its simplest form, and afterwards direct your attention to such modifications of it as have been devised to overcome special difficulties.

The patient's rectum having been emptied by a laxative taken the night previous to the operation, and by an enema administered on the following morning, he should be etherized, and once more carefully examined, in the hope of inserting an instrument through the stricture. Should this attempt fail, he must be put in the lithotomy position, and his hands and feet secured by tapes or anklets in the usual manner. This latter expedient is even more necessary in perineal section than in lithotomy, as the operation is usually prolonged, and the

maintainance of the proper position is exceedingly desirable. A grooved staff, as large as the urethra will admit, is next introduced as far as the stricture, and confided to the hand of a competent assistant, who must be careful to hold it with great steadiness, keeping the instrument exactly in the median line, with its point in contact with the anterior face of the stricture. The operator now makes an incision in the raphe of the perinæum, about two or three inches in length, extending from a point an inch in front of the stricture, to the neighborhood of the anus. This external incision should always be free, in order to facilitate the further steps of the operation, as well as to prevent subsequent urinary infiltration of the wound. Much stress has been laid by some authors on the necessity of avoiding a division of the deep perineal fascia, the section of which is thought by them greatly to increase the risk of infiltration of urine. But experience has shown such fears to be imaginary; indeed they are based upon anatomical reasoning rather than upon surgical observation. In median lithotomy the deep perineal fascia is invariably divided; yet urinary infiltration is extremely rare, and when it occurs, cannot be ascribed to this cause, but rather to the surgeon's having made too small a wound. This accident is obviated rather than occasioned by a free incision, which allows thorough drainage, and a ready outlet for the urine. In making the first incision, the knife may be carried well down towards the staff, and should be entered deeply near the lower end of the wound, in the recto-urethral triangle, where the deep urethra recedes from the surface of the perinæum. It is sometimes advantageous to commence the operation by transfixing the perinæum, and then cutting from within outward. Before doing this, the surgeon, introducing his left forefinger into the rectum, and keeping the palmar surface upward, places the tip of the finger upon the apex of the prostate gland, as in the median operation of lithotomy. A long, straight bistoury, having its edge directed upward, is then thrust into the perineum, a little in front of the anus, and carried on until its point reaches the apex of the prostate. In being withdrawn, it should be made to cut upward to the requisite extent, the upper part of the incision becoming gradually more superficial. If the urethra does not deviate from its normal course, and this manœuvre is performed with dexterity, the surgeon will sometimes succeed in opening the membranous urethra behind the seat of stricture, thereby greatly facilitating the operation. But to do this, requires some practice, as well as a thorough acquaintance with the anatomy of the parts. Here let me caution you never to undertake the operation of perineal section until you have made yourself familiar with the relations of the urethra by dissection. I have seen more blunders committed from the want of anatomical knowledge, in operations on the perinæum, than in all other operations combined; and, moreover, these blunders are very apt to be fatal.

Presuming that the incision has been made in the manner first described, the textures overlying the staff are to be successively divided until the groove of the latter can be distinctly felt; the urethra is then to be laid open for about an inch anterior to the stricture. With



a curved needle, stout threads should next be passed on each side through the lip of the urethral incision, and their ends tied together, the loops thus formed serving as guides to the seat of the stricture, and as tractors to expose the parts at the bottom of the wound. The staff having been withdrawn, and the bleeding from the corpus spongiosum checked by ice or pressure, the sides of the wound should be held asunder, while the operator makes a careful and thorough search for the anterior orifice of the stricture. This step of the operation requires much patience, and considerable delicacy of manipulation. The exposed surface should be minutely inspected, in the hope of discovering the anterior orifice of the stricture. Often this cannot be seen; but, occasionally, it is rendered visible by the escape of a few drops of urine. In a patient operated on in this hospital many years ago, by Dr. Parker, the orifice was revealed by the passage of a little bloody urine, which was forced through the stricture during the act of vomiting; and, before the discovery of anæsthetics, the patient was sometimes directed to try to urinate, with the same object in view. Nowadays, the aid of the patient cannot be invoked; but the urine may occasionally be expelled in the manner described by pressure made upon the bladder above the pubes; especially if, as is not uncommonly the case, the organ is much distended. Fine probes, made of silver or whalebone, are indispensable at this stage of the operation, and with these the face of the stricture should be carefully explored, and an entrance effected, if possible. If a probe, or, what is still better, a slender grooved director, can be made to pass through the constricted part of the canal, the chief difficulty will be overcome; for by entering a delicate probe-pointed knife in the groove of the director, the stricture can be completely divided along the floor of the urethra, until the healthy portion is reached, this being usually somewhat dilated. The last step of the operation consists in the introduction of a full sized catheter through the whole length of the urethra into the bladder, by which procedure the surgeon can deal with any constricting bands that may possibly have escaped division, and, at the same time, satisfy himself that his knife has really entered the urethra, and not strayed into a false passage. But the operation is often much less simple than I have described it. Frequently, the anterior opening of the stricture eludes the most careful search; and, in that case, the surgeon has to choose between two methods, one consisting in cutting longitudinally through the callous tissue until the healthy urethra is entered, and the other in opening the latter behind the stricture, and afterward endeavoring to pass a probe through it from behind forward. If the former plan is adopted, the knife must be carried cautiously through the callous tissue from before backward, in the direction of the normal urethra; and, after each stroke of the scalpel, an examination of the parts should be made to discover, if possible, an entrance to the canal. Sometimes, though rarely, a gush of urine will take place when the knife enters the urethra behind the stricture. Usually, however, success is made apparent by the passage of a probe into the bladder. When the stricture extends far back in the perinæum, the discovery



of the proximal portion of the urethra is often extremely difficult. I once assisted a distinguished surgeon in an operation of perineal section, where three hours elapsed before the urethra behind the stricture was found; and in the records of this hospital may be read an account of two cases in which the bladder was not reached, and the operation had to be abandoned. In one of these, however, the operation was completed on the following day. While advocating the performance of perineal section in certain cases, I desire you to observe, that I am fully aware of the difficulties that may attend it, and which often render it one of the most trying operations in surgery. But I am sure that patience, perseverance, and anatomical knowledge will invariably enable you to accomplish it with success. In endeavoring to find the membranous urethra, its proximity to the rectum must not be forgotten, nor the fact that it passes through the triangular ligament, about an inch below the symphysis pubis. The knife should be kept strictly in the median line, unless there is reason to believe that the urethra has been deflected laterally by the contraction of cicatricial tissue. Sooner or later, and oftentimes after a search which seems fruitless, the unimpeded passage of the probe announces that the end has been achieved; and this fact is demonstrated when a catheter enters the bladder alongside of the probe, and gives exit to the urine. Let me caution you against prematurely removing the probe, before inserting the catheter. I have known a surgeon doing this to spend half an hour in again finding the opening. Sometimes the opening at first made by the knife is quite small, and will require to be enlarged by a probe-pointed bistoury before the catheter will enter; and even where it is large enough, the catheter sometimes enters with difficulty. To overcome this obstacle, I have had made the very simple instrument I now show you. It is merely a straight metal catheter, open at both ends, and tapering at one extremity, which is made just large enough to admit an ordinary silver probe. The probe, which should be two inches longer than the catheter, having been first introduced through the urethra into the bladder, serves as a guide for the latter, which can be slid over it and readily passed onward. The conical form of the catheter facilitates its introduction, while its wider portion enables the operator to decide whether, beyond the aperture that has been made, any constricting fibres still require to be divided. Finally, before passing a catheter through the entire length of the urethra, a probe should be passed forward from the artificial opening, when, perhaps, the canal of the strictured portion may be discovered and opened upon a director. Often this cannot be done; and then there is no alternative but to trust to the formation of a new channel which shall unite the proximal and the distal segments of the canal.

Some operators have advocated the plan, of always approaching the stricture from behind, by opening the membranous urethra, and afterward endeavoring to enter with a probe the posterior orifice of the contracted part. The urethra behind the stricture is usually dilated, and somewhat tunnel-shaped; and it is urged that the posterior orifice, being larger than the anterior, will more readily admit an in-

strument. In practice, I have generally found this advantage to be compensated by the greater difficulty of conducting the exploration in the deeper region of the perinæum. I have already described a method by which, at the commencement of the operation, the membranous urethra may sometimes be opened by transfixion. Another method, which has more than once been practised in this hospital, consists in making a curved incision, as in bilateral lithotomy, in front of the anus, and in afterward dissecting in the recto-urethral space until the membranous urethra is exposed. I doubt whether this plan offers many advantages, and think it would be difficult of execution, if the perinæum contained much fibrous deposit. Occasionally, a sure guide to the perineal portion of the urethra can be obtained by probing an existing fistula; and, when several fistulæ are present, that one through which the greatest amount of urine escapes, will be most likely to admit an instrument. But, as I have already informed you, these fistulæ are often narrow and tortuous, and surrounded by dense, unyielding tissues, thus defying the most persevering attempts to penetrate them. The probe may be arrested after having passed a certain distance; and then, if you incise the fistula with the view of penetrating further, you will generally lose your way altogether. Unless you are convinced, therefore, that the probe has entered the bladder before the operation, I would advise you to leave the fistulæ alone, so they will probably close spontaneously, after the natural course of the urethra has been re-established.

Mr. Furneaux Jordan has operated by opening the membranous urethra through the anterior wall of the rectum; and he states that the operation is quite easy, owing to the dilated condition of the urethra at this point. I have no personal acquaintance with this method, which has obtained as yet but a limited trial; and it is possible that future experience may establish its value. Reasoning *a priori*, however, I should imagine that the operation would be somewhat difficult and uncertain, and liable to cause infiltration of urine.

The oldest mode of practising retrograde catheterism, is that of passing an instrument through a supra-pubic opening into the bladder, and thence forward through the urethra, until it is arrested by the stricture. Its point being felt in the perinæum, the urethra can be opened with certainty by cutting upon it. The idea of operating in this way is generally ascribed to Hunter, although he is said to have been anticipated by a French surgeon, Verguin, of Toulon, who operated in 1757, in the following manner. The case was that of a sailor, who had been wounded in the perinæum, and had been tapped above the pubes for the relief of retention. Sloughing of the wound took place; and Verguin, being unable to find the proximal end of the divided urethra, introduced a curved catheter through the supra pubic fistulæ into the bladder, and thence forward until it appeared in the wound. A second catheter was then passed through the meatus, and, coming into contact with the first one, was guided by the latter into the bladder. In cases of stricture, two catheters are inserted in a similar manner, and their ends brought together by carrying a knife through the intervening stricture. A number of such operations may



be found scattered through medical literature, and the results appear to have been generally satisfactory. One that occurred in the New York Hospital in 1843, was successfully treated in this manner by the late Dr. Buck. Brainard of Chicago, in the year 1849, was the first to puncture the bladder above the pubis, merely with the view of subsequently practising retrograde catheterism, as a means of facilitating the operation of perineal section; previous operators having only utilized for the purpose a fistula already existing. Vollmann and others have acted upon Brainard's suggestion, and with good results. When perineal section is performed according to the method now under consideration, a simple expedient has been devised to ensure the introduction and retention of a catheter. A ligature is first attached to each end of a of soft rubber, perfectly flexible, catheter. The operation having been performed as I have described, the thread attached to one end of the catheter is tied to the extremity of the instrument which has been brought to the perineum through the bladder, and, as this is gradually withdrawn, the catheter is carried into the bladder, and the thread brought out through the fistulous opening. The thread attached to the other end of the catheter is then fastened to the instrument that has been carried through the meatus, and by means of this instrument is drawn forward through the penis, bringing with it the catheter. By allowing the threads to remain, the catheter may be removed, and cleansed or changed when necessary, while the traction on the threads will be sure to keep the instrument in its proper course. If it is thought desirable to retain a catheter in the bladder after the operation, this method offers great advantages; for while a soft rubber instrument causes much less irritation when retained than one that is inflexible, it cannot be guided with certainty in cases like those now under consideration.

No one will deny that when retrograde catheterism through the bladder can be practiced with safety, it is a highly valuable resource, of which advantage ought always to be taken when a suprapubic opening already exists. It affords a certain guide to the urethra behind the stricture, and thereby obviates the chief difficulty in perineal section. But I would not advise you to establish a fistula for this purpose, unless you are convinced that the urethra cannot be reached through the perineum; and such a state of things must be extremely rare. The danger of infiltration of urine attending the supra-pubic puncture is by no means inconsiderable; and, in my judgment, this operation, as a prelude to perineal section, should be reserved for those exceptional cases in which, in consequence of the existence of false passages, or of great displacement of the urethra, the latter cannot be opened posteriorly without the assistance of a guide.

The after treatment of cases of perineal section is usually quite simple, involving little more than cleansing of the wound, and the occasional passage of a sound. American surgeons have generally adopted the recommendation of Van Buren, and avoided the retention of any instrument in the bladder. Formerly a catheter was inserted after the operation, and kept in place during the healing of the



wound, with the view of preventing the urine from coming into contact with it, and of guarding against the occurrence of retention. It has been shown, however, that the practice does not always fulfil the first of these objects, and that retention seldom occurs when the wound is left to itself. The retention of a metallic catheter is liable to cause ulceration of the bladder, which, in some instances, has proved fatal by perforating the coats of this organ. This danger, however, would not attend the employment of a soft rubber catheter, which I believe might be retained with advantage in those cases in which a considerable portion of the urethra has been destroyed. In such a case a catheter should be retained for a time, to give shape to the parts that are to constitute the new urethra. From a neglect of this precaution, I once had great difficulty in getting any instrument into the bladder after the operation, and was compelled to reopen the wound in order to discover the proximal end of the urethra. Should retention of urine occur at an early period, the aspirator must be employed, if a catheter cannot be introduced. But this complication is rarely encountered, and generally it will only be necessary to pass a full-sized sound every two or three days during the healing of the wound, in order to maintain the patency of the urethra. Also, after the patient has recovered, the occasional introduction of a sound, at intervals varying in different cases, must be practised indefinitely; otherwise the disease will be liable to recur. The record of this hospital contains the histories of a number of patients who were obliged to undergo a second operation of perineal urethrotomy, in consequence of having neglected the use of sounds after the first one. This fact need not surprise us, when we consider that the operation wound always heals with the formation of cicatricial tissue, the tendency of which to contract, has been so often proved. But it may serve as an argument against those who pretend that a complete division of the stricture will always effect a radical cure. Urethrotomists who make this extravagant assertion may do so in good faith, as they probably do not always enjoy the opportunity of following their cases, and of ascertaining the ultimate results of their operations; for it will usually happen, that a patient who has been assured by one surgeon that he is permanently cured, will seek advice of another when he finds out that he is not. I cannot dwell upon this subject now, but will return to it in a future lecture.

I have left myself but little time to speak of the general results of perineal urethrotomy without a guide. I recently spent some hours in examining the case-books of the old New York Hospital, where, in former times, were treated so many inveterate cases of stricture, occurring largely among sailors, a class for whom the hospital made special provision. From these records I obtained notes of 47 cases in which perineal section had been performed. Of this number 32 were of gonorrhœal, 14 of traumatic, and 1 of unknown origin. Extravasation of urine was present at the time of operation in 9 cases; of which 4 died and 5 recovered. Excluding the cases complicated with extravasation of urine, out of 24 operations for gonorrhœal strictures, there were 4 deaths; and out of 13 operations for trau-

matic strictures, 4 deaths. In one of the fatal traumatic cases, the operator failed to reach the bladder through the perinæum, and rectal paracentesis was subsequently performed for the relief of retention. In 19 of the patients who recovered after operation, the wound healed completely; while in the remaining 16, a perineal fistula remained at the time when the last record was made. The fistulous opening was usually small, and in many cases it doubtless closed after the patients left the hospital; in two, however, the fistula was so large that all the urine escaped through it. In the fatal cases, death usually resulted from pelvic cellulitis, septicæmia, pyæmia, or uræmia; post-mortem examination frequently revealing extensive organic disease of the bladder, ureters, and kidneys.

The figures I have given you, show, that although the operation of perineal section is one involving considerable risk, it is successful enough to warrant its performance in the desperate class of cases in which it is resorted to.

*Remarks after operation.*—I have now finished the operation, which has lasted just three-quarters of an hour. As you doubtless noticed, although I carefully examined and probed the anterior face of the stricture after having laid it bare by dissection, I failed to discover its orifice. An attempt to explore the fistulous tract proved equally unsatisfactory, and had to be abandoned. I next endeavored to tap the membranous portion of the urethra, by transfixing the perineal tissues in the median line; but I failed in this manoeuvre, as was afterward ascertained, because the urethra had been drawn to the right of its normal position by the contraction of a cicatricial deposit. Upon cutting through the gristly mass comprising the stricture, however, and directing the knife slightly to the right, it suddenly entered the urethra immediately behind the stricture, thus enabling me to pass a catheter, guided by the probe, through the perineal wound into the bladder, and to withdraw about half a pint of turbid urine. Finally, a steel sound—No. 28 F.—was passed through the entire length of the urethra, and then removed, no instrument being retained in the bladder. The gap left between the distal and the proximal ends of the urethra is about an inch, the incision through the callous mass not having corresponded with the exact course of the canal. This interval will, after a while, be occupied by a kind of artificial urethra, which, it is to be hoped, will perform the function of that which has been destroyed.\*

## HOSPITAL RECORDS.

### BELLEVUE HOSPITAL, NEW YORK.

Reported by E. HOCHHEIMER, M.D., House Surgeon.

#### ERYSIPELAS OF HEAD—SLOUGHING OF SCALP AND NECROSIS OF OCCIPITAL BONE.

Michael D., was admitted to the hospital Aug. 24th, with a slight lacerated wound of the cheek, and his face red and much swollen.

\* The patient did well after the operation, and at the present date, December 5th, the perineal wound is almost entirely healed. Nearly all the urine passes through the penis, and a sound, No. 27 F., can be introduced with ease.



During the night he became wildly delirious and so continued for three days, during which time his temperature averaged  $104^{\circ}$ , rising, at times, to  $105\frac{1}{2}^{\circ}$ . At the same time the erysipelas extended upwards over the scalp and downwards over the neck and breast. On the fourth day he was rational for a short time, but soon became stupid, and the face and head were enormously swollen, the scalp being puffed out in ridges and pitting deeply on pressure. Patient's strength diminished from day to day and it seemed merely a question of time as to how soon he should die. The inflammation slowly subsided, leaving abscesses on various parts of the face and neck. Much to the surprise of all who saw him, he rallied and slowly gained strength.

On the 9th of September it was apparent that the whole posterior portion of the scalp would slough, as well as a patch above the right ear; these gradually separated, leaving a granulating surface about the size of the hand. From this an exfoliation of bone about the thickness of an egg-shell took place on the 10th of October, and on the 24th of the same month he was discharged cured.

The treatment, during the height of the erysipelas, consisted of whiskey and quinine, and afterwards of nutritious food and moderate stimulation; charcoal and carrot poultices were applied while the sloughs were separating, and the ulcers remaining were dressed with Balsam of Peru.

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### PERISCOPE.

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#### THE TREATMENT OF ERYSIPELAS BY CARBOLIC ACID INJECTIONS.

This method, first suggested in 1874, by Professor Hueter, of Greifswald, has been tested and elaborated in his clinic with most excellent results. A summary of a paper by his son, Dr. Hermann Hueter, in the *Berliner Klin. Wochenschrift*, will put our readers in possession of the latest particulars on the subject. We may premise that the strength of the carbolic acid solution is 3 per cent., prepared as follows:—Carbolic acid, spirits of wine, of each 1.5 grammes; distilled water, 50 grammes. A Pravaz's syringe is used, and the largest number of simultaneous injections in any one case has been twelve. It is found that one injection into an erysipelatous patch arrests the disease over an area the size of "half a card," by which we presume a visiting-card is meant. Beyond this area, there is scarcely any visible effect; hence, if the patch is very large, the danger of carbolic acid poisoning may be too great for the whole diseased surface to be injected. Dr. Hueter, therefore, lays the greatest stress on nipping erysipelas in the bud, by watching for its earliest symptoms; and the nurses and attendants in Professor Hueter's clinic are carefully instructed in its diagnosis, so as to call the surgeons attention at once to rigors, nausea, vomiting, or any other change in the patient's state which may be the prelude to the rash itself. In this way a small area only, instead of a large one, has to be treated, and the surgeon is practically certain of being able to control the disease. Dr. Hueter's own observations lead him to con-



clude that the more severe the initial symptoms, the earlier the rash appears, and *vice versa*.

The cases in which erysipelas has been detected are treated as follows: Attention is first directed to the wound itself. If the surface is healthy and unaltered (which is unusual), it is merely thoroughly washed with 3 per cent. carbolic solution. If, however, it is in any part coated with a gray, perhaps still somewhat transparent, film, or appears diphtheritic, or pulpy, the affected parts are removed by swabbing with 5 to 8 per cent. solution of chloride of zinc; and this is done in every case where the erysipelas starts from a hollow wound.

After this the erysipelatous skin itself is injected at various spots; and, if detected early, two or three syringefuls of carbolic solution suffice. If the injection has to be repeated very often on the same patch the canula is sometimes left in while the syringe is being refilled, and a second injection is made at the same place, trusting to the known great diffusive power of the carbolic acid. If the erysipelas is complicated with lymphangitis, and lymphadenitis, the red lines on the skin and in the neighborhood of the swollen glands are rubbed with unguentum hydrargyri, and sometimes the edges of the rash itself are thickly smeared with the same ointment.

Lastly, the wound and the reddened skin are wrapped up in a dressing of wet carbolic wool, which is changed two or three times daily until all redness has disappeared. The wound is then antiseptically treated.

The results of this system are most satisfactory.

The erysipelas loses its spreading character after the first injections, and in mild cases is, so to speak, destroyed. Severer cases require a second or third series of injections to prevent the skin re-reddening after it has become pale.

Dr. Hueter gives the short details of the seventeen cases of erysipelas treated in the Greifswald surgical clinic, from May, 1877, to April, 1878. The average duration of each case was two days and a quarter (the longest lasted ten days), and there were no deaths; only one case—the longest—was a complicated one, of the phlegmonous character, with subcutaneous sloughing, not however, due to the injection. Carbolic acid poisoning only once occurred, and was limited to discoloration of the urine, the patient's general state being unaffected. The advantages of the method of using carbolic acid injections as at present carried out are clearly seen by contrasting the results of the year 1876, when the method was in its infancy, with those of 1877-78. In the former year there were thirty cases treated (and even this number was a great reduction on former years), fourteen recovered without complication, and sixteen were severe cases, of which four died. The average duration of each was six days and nine-tenths.

In conclusion Dr. Hueter points out that any reduction in the number and duration of cases of erysipelas in a hospital is a distinct gain for the other patients, who thus run less chance of infection than they would otherwise. A short case of erysipelas is less likely to lead

to the dissemination of "germs" and to their lurking in corners and crevices to spread the disease at some future time, than a long one.—*Med. Times and Gazette.*

#### FORMULÆ FOR SUBCUTANEOUS INJECTIONS.

From a little pamphlet published by Charles J. Powers ("*Druggists' Circular and Chemical Gazette*") we print the following formulæ, as likely to be of use in cases when it is desirable to administer medicines by the hypodermic method:

*Acidum Benzoicum*.—R. Acid. benzoic., 1 part; alcohol, 12 parts. Dissolve.

*Aconitia*.—R. Aconitia, 3 grains; water, 300 minims. Mix and filter. Each minim represents 1-100 gr. aconitia. Three to 6 minims can be injected at a dose.

*Apomorphia, Murias*.—R. Apomorphia muriate, 3 grs.; water distilled, 300 minims. Mix and filter. Each minim represents 1-100 gr. apomorphia. Ten to 11 minims can be injected at one dose, as an emetic in opium poisoning.

*Atropiæ Sulphas*.—R. Atropiæ sulph., 3 grs.; water distilled, 300 minims. Mix and filter. Each minim represents 1-100 gr. atropia. 1½ to 3 minims can be injected at one dose.

*Ammonia*, 1 part; water distilled, 2 parts. Inject one-half syringe or more to overcome the tonic effect produced by bite of a venomous snake. (Halford.)

*Camphora*.—R. Camphor, 1 part; alcohol, 12 parts. Dissolve and filter. (Rohde.)

*Quinia, Sulphas and Murias*.—R. Quinia sulphate, 15 grains; water distilled, 154 minims; acid sul. arom., q. s. Dissolve and filter. Each minim represents 1-12 grain. 5 minims to 14 to be injected at a dose.

*Chloral Hydras*.—R. Chloral hydrate, 75 grains; water distilled, 75 minims. Mix and filter. Each minim represents 1 grain chloral. To be used as physicians suggest, as all cases do not bear same dose alike.

*Caffeia*.—R. Caffeia, 7½ grs.; spirits wine, 75 minims; water distilled, 75 minims. Mix and filter. Each minim represents 1-20 grain of remedy. 4 minims to 15 minims can be injected at a dose.

*Conia*.—R. Conia, 1 grain; spirits wine dilute, 60 minims; water distilled, 60 minims. Mix and filter. Each minim represents 1-120 grain of conia. 2 to 4 minims to be injected at a dose.

*Curare or Woorara*.—R. Woorara, 3 grains; water distilled, 300 minims. Mix and filter. Each minim represents 1-100 grain. 4 minims to 9 minims to be injected at a dose.

*Extractum Opii*.—R. Extract opium, aqueous, 5 grains; water, 10 minims. Mix. Each minim represents ½ grain. 1 minim to 2½ minims to be injected at a dose. (Lebert.)

*Ergotinum*.—R. Extract of ergot, 38 grains are dissolved in 114 minims dilute spirits and 114 glycerine. Each minim represents 38-

220 or 1-6 grain. 5 minims to 12 minims can be injected at a dose. The extract can also be dissolved in an equal quantity of distilled water, and of it 1 or more minims can be used.

*Hydrargyri Bichlor. Corros.*—R. Corrosive sublim.,  $3\frac{3}{4}$  grs.; water distilled, 375 minims. Mix and filter. Each minim represents 1-100 grain. 5 minims to 10 minims to be used at a dose.

*Hydrargyri Biniodidum.*—R. Mercury biniodide,  $3\frac{3}{4}$  grains; potass. iodide, 45 grains; water distilled, 375 minims. Rub mercury and potass. together, adding water, then filter. Each minim represents 1-100 grain biniodide mercury. 7 minims to 10 minims used at a dose.

*Potassii Iodidum.*—R. Potass. iod., 75 grains; water distilled, 225 minims. Mix and filter. Each minim represents  $\frac{1}{3}$  grain. 5 minims to 10 minims can be injected at a dose.

*Morphiæ Sulphas Acetas or Murias.*—R. Morphia,  $1\frac{1}{2}$  grain; water distilled, 75 minims. Mix and filter. Each minim represents 3-150 or 1-50 grain.  $4\frac{1}{2}$  minims to  $7\frac{1}{2}$  minims to be used at a dose.

*Didani's Hypodermic Solution of Morphia and Atropia.*—R. Morphia sulph., 24 grains; atropia sulph., 1 grain; oil bitter almonds, 1 drop; water, 2 ounces. Mix and filter. 10 minims contain  $\frac{1}{4}$  grain morph. and 1-96 grain atropia. These amounts have been found by experience to balance each other, so that the full anodyne effect of the morph. is secured without nausea. The oil of bitter almonds prevents all muddiness.

*Nicotia.*—R. Nicotia,  $\frac{1}{2}$  grain; water distilled, 2 drachms. 1 minim represents 1-240 grains. 4 minims, representing 1-60 grain, is a suitable dose.

*Spiritus Etheris.*—R. 30 to 40 drops divided among the 4 extremities as an excitant.

*Strychniæ Sulphas or Nitras.*—R. Strychniæ sulph., 2 grains; Water distilled, 1 ounce. Mix. Heat in a test tube until all crystals disappear, or preferably to this triturate in mortar and add water. 5 minims represent 1-48 grain.

*Tinctura Cannabis Indica.*—R. Tinct. cannab. ind., water distilled, equal parts. Use 4 minims to 11 minims. (Eutenberg.)

*Tinctura Opii.*—R. Tinct. opii, 3 minims to 11 minims.

*Veratrina.*—R. Veratrina,  $\frac{1}{2}$  grain; water, 50 minims; dil. alcohol, 50 minims. Mix. 1 minim represents 1-200 grain, 4 minims to 10 minims. Subcutaneous injections are also employed to produce a local irritation at any point in the perineum, and thereby act as a revulsive (and thus produce a conducting away). Parenchymatous substitution according to Linton, Linton recommends for this purpose common salt, alcohol, tincture of iodine, tincture of cantharides, sulphate of copper, argentic nitrate. The hypodermic method has been employed of late for destruction of new formation. The following remedies are used in producing these results:



*Acid Acetic.*—R. Acid acetic, 1 part ; water, 5 parts. Inject 30 drops into a swelling. (Broadbent.)

*Argentio Nitras.*—R. Nitrate of silver, 30 grains; water distilled,  $\frac{1}{2}$  ounce. Each minim represents 1-8 grain nitrate of silver. Immediately after some of the silver solution has been injected into the swelling Thiersch recommends a solution of common salt to be injected.

*Tinctura Iodinii.*—R. Tr. iodine, 1 part; water, 50 parts. Or 3 to 6 drops tinct. injected undiluted, and even more in case of struma and chronic swelling of the lymph gland (Lücke). In place of tincture iodine we can employ a solution of iodine and iodide potassium, which is less painful. Take of iodine 7 grains; iodide of potassium, 35 grains; water 770 grains. The latest injections are against hypertrophia tonsillarum under the mucous membrane. Either a solution of iodide of potash, 1 to 50 (Iakenbouitz), or iodine in iodide of potash. Iodine 2 grains; iodide potash, 38 grains; water, 463 grains. (Rumbold.) A solution of iodine in glycerine; 1 part or 2 parts iodine to 100 parts glycerine. (B. Fränkel.) Pepsin in solution has been used by Thiersch and Nussbaum more as experiments.

*Spiritus Vini.*—R.  $\frac{1}{4}$  to  $\frac{1}{2}$  syringe against struma. (Schwabe.) The subcutaneous injections, according to the latest experiments of Menzel and Perco, may probably be used for the incorporation of nourishment, since fats, milk, and the yolks of eggs are absorbed by the subcutaneous tissue.—*Richmond and Louisville Medical Journal.*

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## NEWS ITEMS AND NOTES.

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**To Conceal the Taste of Quinia.**—Dr. S. Ashhurst says that if cinchona be mixed in the proportion of one grain of the alkaloid to four grains of sugar of milk, and one-tenth of a grain of bicarbonate of soda, it will leave no bitter taste in the mouth. The mixture may be taken dry or dissolved in water.

**Influence of Gaslight on the Eye.**—The German Minister of instruction, in a recent report on the influence of gaslight on the eye, concludes that no evil results follow a moderate use of gas, if the direct action of the yellow flame on the eye is prevented. Grave objections he makes to the use of zinc or lead shades, most evils affecting the eye being traceable to them. Their use, it is said, inevitably tends to blindness or inflammation, and other harmful effects. The milky white glass shade is the best, as it distributes the light and has a grateful effect on the eye. The burner should not be too close to the head, as congestion of the forehead and headaches result from the radiated heat. The glass plate below the gas is especially useful for the purpose, as it causes an equal distribution of the light—necessary where a number are working at one burner—prevents the radiation of heat, and tends to a steady illumination by shielding the flames from currents of air. In cases of highly inflamed eyes, he recommends dark-blue globes.—*Scientific American.*

Cremation in London.—A paragraph in the *Dublin Medical Press* states that the London Cremation Society are fitting up a cremating apparatus—"Cernal's Cremator"—and in a short time it will be in a plot of ground contiguous to Woking Convict Prison, Surrey.—*Philadelphia Med. Times*.

The Glasgow Bank.—A medical man in Glasgow is said to have stated that since the stoppage of the City Bank, two of his patients, who are shareholders, have lost their reason and been sent to a lunatic asylum; while several others connected with the bank, either directly or indirectly, have been completely prostrated by disease induced by the effects of the calamity preying on their minds.—*The British Medical Journal*.

Medical Mayors.—The list of provincial mayors elected on Saturday last contains the names of the following members of the medical profession: Dr. J. T. Arlidge, Newcastle, Staffordshire; Mr. B. Barrow, Ryde, Isle of Wight (fifth time in succession); Mr. J. H. Boughton, Tewkesbury; Dr. J. Tasker Evans, Hertford; Mr. W. Hall, Loughborough; and Dr. Tibbits, Warwick re-elected.—*The British Medical Jour.*

Batley's Operation.—Dr. George J. Englemann, of St. Louis, says the *Philadelphia Medical Reporter*, has done a very creditable and an unusual thing in reporting three fatal cases of Batley's operation. Physicians are usually afraid to report failures, although, as Dr. Englemann remarks, they are often more instructive than successes. He does not do this to condemn the operation; on the contrary, he concludes that it is a desperate but not unpromising resort for ovarian suffering which cannot be relieved by other means.—*The British Med. Journal*.

John Hunter could barely read or write when he was twenty years of age. He was once told, says the "*Philadelphia Druggist and Chemist*," that one of his contemporaries had charged him with being ignorant of the dead languages, to which he answered: "I would undertake to teach him that on the dead body which he never knew in any language, dead or living."—*The Amer. Med. Bi-Weekly*.

Hygrometric Handkerchief.—In France, handkerchiefs printed with chloride of cobalt are sold under the name of "Foulards Barometre." The design represents a man with an umbrella. In fine weather the umbrella is blue; in changeable, gray; and in rainy weather, white. The first wetting removes the chloride of cobalt, and the handkerchief loses its barometric properties.—*The Amer. Med. Bi-Weekly*.

# THE HOSPITAL GAZETTE

AND

## ARCHIVES OF CLINICAL SURGERY.

A WEEKLY JOURNAL OF MEDICINE, SURGERY AND THE COLLATERAL SCIENCES.

EDITED BY

EDWARD J. BERMINGHAM, A.M., M.D., and FREDERICK A. LYONS, A.M., M.D.

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### LECTURES.

#### A CLINICAL LECTURE ON CLUB FOOT.

Delivered at Bellevue Hospital, New York.

BY

LEWIS A. SAYRE, M.D.,

Professor of Orthopedic Surgery and Clinical Surgery in the Bellevue Hospital Medical College.

GENTLEMEN:—Yesterday was the first day I have been able to visit the hospital, and I found there many interesting and important cases, one or two of which I will exhibit to you to-day.

Before I show you the case of club foot upon which I propose to operate I want you to see a similar case upon which I operated three years ago. It was a case of talipes varo-equinus of both feet, the varus of the right foot being so extreme as to dislocate the astragalus. I operated upon both feet, and the result of the operation in one foot was, as you see, a perfect success. The other, although operated upon in exactly the same way, did not turn out so well, for the reason that I could not reduce the partially luxated astragalus. The child was taken home to Kansas and I have not seen him until three weeks ago, at which time I found the right foot in worse position than it was when I operated three years ago. At the first operation, three years ago, I divided the tendo-Achillis and plantar fascia, but this was not all that should have been done.

When I commit an error,—when I make a mistake in diagnosis or treatment, I always learn something by it, and when I have committed any such blunder—when I am so blind as not to see what I should have seen, and afterwards find out my mistake, I take the first opportunity to go before a body of medical men or medical students, and expose my ignorance or error, that my professional brethren may not make the same blunder.

It was for this reason that I brought this case before you to-day. The point which I wish to make in respect to this individual case is, that the tegumentary tissue needed section, and I simply divided the plantar fascia and muscles, expecting that the skin would *stretch by constant tension*: it was a blunder, notwithstanding Mr. Little, the great ortho-



pedic surgeon of London, and one of the greatest in the world, criticises my treatment of talipes, where I recommend section and immediate reposition, and states that there never should be section of the tegument, and that we should depend upon extension for the elongation of the cicatricial tissue. The importance of the proposition which I have so frequently asserted, should be realized by every one of you in the consideration of such a case as I here present you with, namely, that when you are going to reduce a deformity of this kind, you are to cut *tendon, fascia, and even skin*, if these tissues, when put upon the stretch, yield reflex spasm upon point pressure. Having divided the tissues, then place the parts in their normal position at once, thus making the *separation* of the divided parts as great as it is ever wished to be. Having done this, the foot is to be fixed in its improved position, so that the newly exuded material which fills up the space thus formed, may become organized and of sufficient strength to be of the same utility as the corresponding part on the opposite side of the body. Whereas, if you simply divide the tendon and close the wound and allow the foot to remain in its abnormal position until the external wound has healed, before the traction is applied and expect to draw out gradually, and thus *extend* this newly exuded material, you get up a nervous irritation which results in constitutional trouble, all of which would be obviated if the parts were instantly placed in their normal position.

The case referred to by Mr. Little, in my book, page 122, was one of double talipes equino-varus which followed a severe attack of typhoid fever. Mr. Little in his review of my book, has cited this case as militating against my plan of treatment. The complication which occurred after I had divided the tendo-Achillis, plantar fascia and skin of the left foot, was not a consequence of any such procedure, but was simply due to the fact that the foot-board pressed too firmly against the metatarsal bone of the great toe, thus making undue pressure, and as the girl was so delighted to see her foot straight, she did not complain as she should have done, and therefore deceived my assistant, who had charge of the case during my illness, until, finally, pus was produced, and not being evacuated, was absorbed, producing symptoms of pyæmia. Had the undue pressure of the foot-board been corrected as soon as any unpleasant sensations were produced, the complication which obtained would never have resulted. Mr. Little has severely criticised my plan of treatment, and has taken the history of this case to illustrate his point. As soon as I was able to get to the case and give vent to the imprisoned pus by a free incision, the case rapidly progressed towards recovery, and the final result was very satisfactory.

But to return to this little fellow upon whom I operated three weeks ago. At this time, when I began the operation, I expected I would be obliged to excise the astragalus, and this view was further strengthened, when, after complete section of the plantar fascia, I found it as impossible to rectify the malposition of this bone as it was before the operation was begun. But, as I still obtained a reflex spasm upon point pressure of the tegumentary tissue when it was

placed upon the stretch, I decided to divide it, before resorting to exsection. I made a two inch incision through the skin, covering the plantar fascia, which enabled me by applying considerable force, to push the astragalus home, and the curious fact in connection with this is, that the whole wound has healed by granulation, without the formation of any pus at all. This is the second time I have seen the patient since the operation. Now, as you see, the foot is easily retained in its normal position. The peroneal muscles require friction, shampooing, and electricity to develop them, and with an ordinary shoe, attached to which is an outside ankle support to keep the foot everted, he will undoubtedly make a good recovery.\*

Some two weeks ago I had occasion to perform a similar operation upon the foot of a young lady twenty-five years of age, who had previously been operated upon some fifteen or twenty times, having been under treatment since four years of age. She was unable to walk, her foot being completely inverted and doubled under so that she rested her weight upon the astragalus. By cutting the plantar fascia, and the entire tegumentary tissue over it, I was enabled to reduce the luxated astragalus and she has made a perfect and complete recovery. The shoe which this patient has been wearing to keep her foot in position, has attached to it a most ingenious instrument, and I have brought it with me for the purpose of showing it to you. It is a modification of Taylor's instrument for this deformity, inversion of the foot, and has in addition to the movement at the ankle, a hinged lever and screw, by means of which the foot can be pushed into position. It is one of the most useful instruments for this purpose which I have seen. The entire instrument was made by an ordinary blacksmith, which shows that a good instrument can be made out in the country, and without reference to professional instrument makers, if you have the brains to tell a blacksmith what to do.

A very simple and effectual dressing to be used after an operation for club foot is as follows: you will do well to observe me as I construct this dressing. First, take a piece of board cut somewhat in the shape of the sole of the foot, then take a strip of adhesive plaster, long enough to pass over the instep and lock around on either side like the straps of a sandal, and place the middle of this strip over the edge of the heel of the foot-board. Another strip of plaster is now cut, which should be as wide as the foot-board and sufficiently long to cover both sides of the same and pass a short distance above the knee. Commence by applying this strip of plaster to the toe of the foot-board and carry it back over the adhesive plaster first applied at the heel, then along the bottom of the foot-board to the front again. The board is now padded under the plaster with a little cotton, both at the heel and at the base of the great toe. By approximating the edges of the plaster at the narrowest part of the foot-board the cotton thus placed is held in position. We are now ready for our operation.

The patient upon whom I now propose to operate is Emma J., of

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\*I saw the child just three weeks after he was exhibited at the clinic, and the prediction then made was fully verified. REPORTER.



Enfield Center, N. H., who has talipes varo-equinus of the right foot. When seven years old she lost the use of her right limb, which became flexed to such an extent that her knee came against the middle of her sternum. In about a year, by continued friction and manipulation the limb was straightened. Since this time the right lower extremity has been weaker and smaller than the left. One morning last winter she awoke with a "numb" sensation in her right arm and an inability to move it. The right side of her face was paralyzed and badly distorted. This, however, all passed off rapidly, and in June last she had another similar attack which also passed off quickly. During neither of these attacks were the lower extremities involved. Patient has never worn any splint until last winter, after her paralytic seizure, when one was applied to rectify the tendency to walk upon the outside of the foot. A second splint was applied in March last which has been worn constantly up to the present time; but soon after its application she noticed for the first time a tendency of her right knee to project inward. Her family history is good and there is no account of any injury. Her right tibia is now partially luxated and somewhat rotated outward, and she has in addition, talipes varo-equinus of the right foot, for which we now propose to operate.

If I flex the foot so as to put the plantar fascia upon the stretch and then make point pressure upon the plantar surface, you see that there is instantly a reflex muscular spasm which indicates that section is necessary in order to rectify the deformity. The patient having been anesthetized, I take a round ended tenatome and divide the plantar fascia subcutaneously. The instant the section has been made the knife is turned flatwise so as not to cut any further and then withdrawn. Upon the instant of the withdrawal of the knife the thumb is placed over the incision so as to exclude the air, and immediately a short strip of adhesive plaster is substituted in place of the thumb, and over this a roller bandage is carried. Having done this we are ready to cut the tendo Achillis. This is to be done by introducing the tenatome flatwise, passing it slowly through the tissues up to the tendon. Having reached the tendon the knife is carried flatwise underneath it and then turned with its cutting-edge towards the tendon giving the knife a slightly sawing motion, while with the thumb of the other hand pressure is made over the tendon against the knife until the tendon gives way, which is generally accompanied by an audible snap. The knife is removed and the wound closed in the same manner as before, by a piece of adhesive plaster, and over it the same roller bandage is continued.

The foot is now replaced on the instant, where it belongs, namely, at a right angle with the leg. In bringing her foot into position I have pressed so hard over the top of the instep as to endanger sloughing unless padding is freely used.

Our previously prepared foot-board is now placed in position under the foot, and the strip of adhesive plaster at the heel of the foot-board is brought up and crossed over the instep and carried under the foot-



board in front. The foot-board and adhesive plaster are now secured in position by a roller bandage.

The foot is now brought into position by means of the guy, so to speak, which extends over the end of the foot-board at the toes and up the leg and holds the foot in its rectified position. The roller bandage is now carried up the leg binding in the adhesive plaster at that point which is found necessary to retain the foot in the desired position. The end of the adhesive plaster which extends above the knee is usually reversed and the bandage carried over it so as to give greater security to the dressing. But in this case, owing to the subluxation at the knee and the shortness of the leg, we are obliged to carry the bandage up on the thigh.

In applying these bandages you must watch, with great care, the circulation, to see that you do not get the bandages too tight.

If there be any tendency to inversion or eversion of the foot this may be corrected by taking another strip of adhesive plaster, pass it over the foot at the base of the toes, nearly encircling it, and carry it to the inside or the outside of the leg as the case may require, this being secured to the leg by a roller bandage.

Now you observe that the toes have been left out for the purpose of inspection. You see when I put my finger upon one of them the blood is pressed out of it, and upon removing my finger the blood quickly returns, showing that the bandages have been correctly applied and are not too tight. But if there was a slow return of the blood, this would indicate that the circulation was obstructed by too much pressure, and I would have to remove all the dressings and re-apply them more carefully in order that the circulation in all parts should be free. I would do this at once and at the risk of my reputation and censure, no matter under what circumstances or before what body of men I had made the blunder, because the saving of the patient's foot is of more importance to me, than any momentary applause.

(At the same clinic two weeks later the following remarks were made in connection with the exhibition of the above case.—REPORTER.)

GENTLEMEN:—You will perhaps remember this young lady, upon whom I operated two weeks ago to-day for talipes equino-varus of some fifteen or sixteen years standing. You see the foot has been retained by the dressings in exactly the same position it was when we left it, and that she now walks upon the sole of her foot in the normal manner. The bandages have not been removed or in the least disturbed since they were first applied two weeks ago. We will now remove them and inspect the foot. The adhesive plaster, you observe, has remained just where it was put. There will never be any trouble from the slipping of the adhesive plaster, if in the first place you have good plaster, and then apply it properly.

The foot is in its normal position, the wounds have entirely healed, and there is no slough. When I put the plantar fascia upon the stretch and make firm pressure upon the plantar surface, you see the reflex spasm which was so marked previous to the operation, is

*entirely absent*, showing that no further section is necessary. The tendo-Achillis is now placed upon the stretch and pressure applied over it, but *no reflex spasm is obtained*.

The foot and leg are now in condition to receive friction, shampooing, and exercise. We will now re-apply the dressing for keeping the foot in position, which should be worn a while longer.

I wish here to call attention to a recent improvement, which has been made in the treatment of club-foot, by, Dr. Newton M. Shaffer, of this city. By an ingenious "extension-shoe" which he has contrived, he is enabled to make continued extension of the parts contracted, which, being kept up for a sufficient length of time, the deformity is reduced without resorting to section of any of the tissues. If the same success proves to uniformly result from this plan of treatment, as by section, it will be a great acquisition to our methods of treating these cases.

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### CARCINOMA OF THE STOMACH.

A Clinical Lecture delivered at The House of the Good Shepherd, Syracuse, N.Y., Dec., 3rd, 1878.

BY  
WM. T. PLANT, M.D.  
(Reported by A. L. HALL.)

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GENTLEMEN:—The patient before us, H. P., brings the following history. He is by birth a German—about 55 yrs. of age,—by trade a tailor. He has been a temperate, healthy, working-man. Last March he began to complain, as his wife expressed it, "of his insides." There was occasional pain in the upper part of the abdomen, with constipation and indigestion. Soon, he was forced to abandon his regular work. Several times, during the Spring and Summer, he went back to it, but in each instance, he was obliged to give in, to the increasing pain and weakness. Some days ago, he came to this House, hoping to receive that relief from suffering, that he had failed to obtain at home. But he has not improved since admission. He still suffers severe pain, at times, and constant discomfort in the upper part of the abdomen.

He is, as you see, considerably emaciated and has a wan and suffering look. He is not sallow, and it does not appear that he has been. His bowels, without laxatives, are obstinately constipated; he is greatly troubled with hiccup; his tongue is coated; his breath is offensive. Now what is the matter with this man? His features and demeanor, his increasing emaciation and suffering are suggestive of some serious and mortal trouble. Naturally in our examination, we shall turn to that part of which he complains, namely, the abdomen, and its upper part. For convenience in examination, we divide the abdomen into regions. If we draw a line athwart the belly, between the cartilages of the 10th ribs, and another line, between the anterior superior spinous processes, we then have the abdomen divided into three zones, which are named the epigastric, the umbilical, and the hypogastric zones. The pain complained of has been, always, within the boundary lines of the epigastric zone. So we will devote our attention to this part, and enquire where the pain has centered. To this end, we subdivide this zone into three regions; using as nat-



ural boundary lines, the cartilages of the false ribs. We name these three regions epigastric—over stomach; and right and left hypochondriac—under the cartilages.

Now we ask him where the the pain is, and has been the most, and he points to the epigastric region, whence he describes it as radiating to both hypochondria. This trouble has been of so long standing, and so severe, that we cannot avoid the conviction, that we have some organic lesion in the viscera, of this epigastric region, and perhaps also in the other regions of this epigastric zone. But what viscera have we in these regions?

The epigastric contains, at its upper part, the left lobe of the liver, and below, the smaller end of the stomach, with the pyloric orifice, and considerable of the body. Back of the stomach, lies the pancreas. The right hypochondrium is occupied, almost wholly, by the larger end of the liver; the left, principally, by the greater end of the stomach and the spleen.

Now this epigastric region, being occupied for the most part by a hollow viscera, should be somewhat resonant on percussion. But a gentle tap or two discloses the fact, that there is a solid body under our hammer. It discloses another fact, and that is, that there is tenderness here,—for, tap never so lightly, and we elicit signs of pain. Carrying our investigations a little farther, inspection, shows us, an unnatural fulness of the epigastric region, and by palpation, we detect what seems to be a hard and somewhat nodular mass. Now taking the history and symptoms as described, and this solid growth in the epigastric region as we find it, to what conclusion are we brought as to the nature of this man's trouble? Doubtless you are all ready to answer, to scirrhus of the stomach. Let us see, if we are borne out in this by the usual symptoms and course of gastric cancer.

*First*; as to frequency,—It is more frequent than any other except that of the uterus.

*Second*; as to age,—The great majority of cases occur between 50 and 60, so that this patient at 55, is at the most favorable age.

*Third*; as to sex,—It is twice as common in men as in women.

*Fourth*; character of growth.—This tumor we see is hard—most all cases of malignant stomach disease are of the scirrhus variety.

*Fifth*; situation of growth.—We judge that this occupies the smaller end of the stomach and a pretty large part of the body contiguous to it. The great majority of the cases are situated here; some are at the cardiac orifice and extend a little way up the œsophagus. A very few commence in body of organ and extend in all directions.

*Sixth*; character of pain.—This patient describes his pain as rather constant, but with paroxysms, in which it is very acute and radiating, forcing him often to get up when lying down, and sometimes to cry out in his agony.

*Seventh*; vomiting.—This case is characterized by occasional severe vomiting. Not coming on directly after eating as in ulcer of the stomach, but seemingly from accumulation of food in stomach, as we would expect, indeed, if there was obstruction at the pylorus. Where



there is obstruction at the cardiac orifice, there is frequently regurgitation of the food before it reaches the stomach.

*Eighth.*—Again, constipation attends most cases of gastric cancer. There are several reasons why this should be so. The food, taken in small quantity at best, is mostly fluid, and so absorbed directly from the walls of the stomach, so that the bowels are comparatively empty. Contributory causes are the little exercise taken, and a general atony of the system.

*Ninth.*—Loss of weight and strength.—Though always a light weight, this man weighs considerably less than before his illness, and the loss is still going on. The same is true of his strength.

Prognosis: Supposing that we are correct in our diagnosis, what opinion can we give as to the probable issue of this case? It is wholly unfavorable. If we can be certain of the correctness of our diagnosis, we may be certain of a fatal issue, within one two, or at the very most three years from the beginning. The fatal event can neither be averted or deferred by any known treatment. We can do very much, however, to alleviate the suffering of our patient and "smooth the pathway to the tomb." To this end, use morphia hypodermically or by the mouth, and carefully direct the quantity and quality of the food, and the intervals of taking it. This man has a drink of milk once in two hours followed by one fifth of a gramme of pepsin. He has less distress from his food than before. But our thoughts, to-day, were to be directed more to the nature of the difficulty than to the treatment.

It is not improbable, that before the end of the present college year, in June, we may have the melancholy pleasure of testing the correctness of our diagnosis by autopsical examination.

## HOSPITAL RECORDS.

### COLORED HOSPITAL, NEW YORK.

Reported by T. E. RUSSELL, House Physician.

#### PUERPERAL UREMIA, COLD PACKS, RECOVERY.—SERVICE OF DR. S. WHITALL.

Louisa T., æt. 22, single, primipara. Admitted to lying-in ward July 24 '78.

Previous history unimportant with the exception of an attack of scarlatina about one year prior to admission. She does not remember ever having had dropsy. Had considerable gastric disturbance during the earlier months of pregnancy, followed at times by dizziness. First noticed oedema of lower extremities about two weeks prior to admission, at same time had considerable headache, dimness of vision and other uræmic manifestations.

On admission there is excessive oedema of lower extremities, slight puffiness of the face and some ascites; she has headache and vertigo. No elevation of temperature. Urine contains albumen and casts. Uterus very large and from its peculiar shape, twin pregnancy was suspected.

*Treatment.*—Gentle purges and diuretic mixture of

R.

Infus digital,  $\bar{5}$  ss

Potas. acetas, gr. xx

M.

T. i. d.

*August. 31-'78.*—After a labor of 16 hours duration, the woman was delivered of twins, one living, the other dead, the former a vertex presentation, the latter a hand and foot. Uterus flabby, placenta adherent, necessitating removal by manipulation, considerable flooding. After delivery the temperature was  $101^{\circ}$ , in two hours it fell to  $100^{\circ}$ .

*P. M.*—Patient is comatose, pupils moderately contracted, respond sluggish.

P. 120. R. 26. T.  $103^{\circ}$ .

*Urine.*—Amber, acid, 1008. Albumen, 90%.

In the evening had a slight uræmic convulsion.

*Ord.*—Ol. tigllii, M. iij.

At 10 P. M. still comatose; bled  $\bar{5}$  viij from arm.

*Sept. 1-'78.*—No recurrence of convulsion, still comatose.

Bowels have moved freely. Breathing labored, moist rales over both lungs.

P. 150. R. 68. T.  $105\frac{4}{5}^{\circ}$ .

*Ord.* cold pack *until* temperature fell, also spts. frumenti  $\bar{3}$  i every hour.

*Sept. 2-'78.*—Coma continues. P. 140. R. 56. T. 105.

*Sept. 3-'78.*—Pack still continued; bears it well; is still partially comatose; is with difficulty aroused when spoken to. P. 115. R. 44. T.  $101\frac{2}{5}^{\circ}$ .

*Urine.*—Amber, acid, 1009. Albumen 20%.

*Sept. 4-'78.*—Discontinued cold pack this A. M. Rests well, is conscious. Had no headache or other uræmic manifestations. Discontinued stimulants.

P. 86. R. 28. T.  $101^{\circ}$ .

*Sept. 5-'78.*—Passed 200  $\bar{5}$  urine in last 24 hours.

Discontinued diuretic mixture.

P. 105. R. 30. T.  $101\frac{3}{5}^{\circ}$ .

*Sept. 8-'78.*—*Ord.* Tr. ferri chlor., M. xx  
Cinchonidia sulph., gr. iij

M.

T. i. d.

P. 84. R. 24. T.  $99\frac{2}{5}^{\circ}$ .

*Sept. 12-'78.*—Sitting up, feels very well, no unpleasant symptoms.

*Urine*, amber, acid, 1012; albumen, trace.

*Nov. 15-'78.*—Mother and child discharged in good condition.

## BELLEVUE HOSPITAL, NEW YORK.

Reported by E. HOCHHEIMER, M.D., House Surgeon.

### EXTRAVASATION OF URINE FOLLOWING STRICTURE OF URETHRA AND CALCULUS.

Harry T., aged 33, was admitted to the hospital on the 19th of June, looking like one suffering from a severe, acute disorder. No previous history was obtained, except that he had been sick with chills and fever for about three weeks. The penis and scrotum were black and indurated and enormously swollen, the tumefaction extending to the abdomen, the perineum being involved only to a limited extent. From the under surfaces of the genitalia a bloody fluid, evidently urine, was dripping.

Free incisions were made into the scrotum, and charcoal poultices applied to the parts. The next day the patient was unconscious; the glans penis, which, on his admission had been entirely concealed by the sloughing prepuce was exposed, and a No. 10 catheter was introduced without much difficulty and eight ounces urine withdrawn. He continued to sink rapidly and, in spite of all that could be done, died at 5:30 p. m.

The autopsy, made within twenty-four hours after death, showed hydropericardium, old tubercles and oedema of the lungs, old pleurisy, and softening of the liver and spleen. In the urethra, there was a stricture one and three-quarter inches from the meatus, and behind it the canal was dilated and lacerated. The tissues at the bulbo-membranous junction were much broken down, and in the prostatic portion was a calculus.

## PERISCOPE.

### ENTROPHY OF THE HEART.

(By JOHN T. HODGEN, M.D.)

Mrs. —, a German, (at term attended by Dr. Bernays, in February, 1867, gave birth to a healthy living child. The heart was found entirely outside of the chest, the vessels passing from the chest through an opening in the median line. The heart was not covered by pericardium, and stood with its apex pointing forward, downward and to the left. The organ pulsated rapidly but regularly; with each elongation of the organ, the apex was pushed forward and swept to the left. The contractile wave, beginning at the auricles, swept over the ventricles.

On the third day after birth, the heart had lost its red color, being covered by a thick layer of fibrinous matter. This assumed a yellowish tinge, becoming softened, and was detached, leaving the muscular tissue of the heart exposed and dry, or less moist than it had been.

On the fourth day, the auriculo-ventricular fissure became deeper, and presented a ragged-looking groove, which was deepened by the thickening of the borders.

On the fifth day the child died, and twelve hours after a post mortem examination was made in the presence of Drs. Hammer and Rogers.



The body was about the average size, and perfect except as noted. The distance between the inner ends of clavicles—*i.e.* the sterno-clavicular articulations—was  $1\frac{3}{4}$  inches. The first and second pieces of the sternum were divided, leaving a space like the letter U; this cleft extended to a point opposite the articulation of the fourth rib with the sternum, the opening being one inch in diameter.

As it approached the opening, the skin was continuous with a dense fibrous structure which was found attached to the great vessels—(*i. e.* the pulmonary artery, the aorta, and the vena cava—at a point corresponding to that at which the pericardium is attached. This connection served to hold the vessels in position, as they escaped through the opening in the more dense structures. The heart was of normal size, but more elongated; the apex being formed by the *right* ventricle.

On opening the chest no space was found for the heart, the mediastinum being central, with the phrenic nerves passing down in it near each other; the lungs filled the entire cavity, and each lung had three lobes. The hepatic veins ascended as a long single vessel to the right of the median line, in the mediastinum, and entered the right auricle of the heart on its right side and behind the opening for the ascending cava.

The ascending cava passed up the *left* side of the median line in the mediastinum, received the descending cava, and entered the right auricle by a sinuous passage, at the first passing downwards, then turning at a right angle to the right entered the auricle. The descending cava, half an inch long, situated to *left* of median line, received the innominate of right side, which was long and crossed the median line toward the left. The left innominate vein passed directly downward, and joined the right, on the left of the median line, formed the descending cava. A single pulmonary vein, formed by the union of a vein from each side, entered the *left* auricle. The pulmonary artery, having but two semilunar valves at its beginning, took its origin from the right ventricle; while immediately to its right, and from the right ventricle also, came the aorta. A free opening existed between the right and left ventricles. No foramen ovale existed between the right and left auricles, the septum being perfect; no dustus arteriosus.

Extensive and recent adhesions, formed by recently deposited lymph, showed the existence of peritonitis.—*The Amer. Practitioner.*

#### MALIGNANT TUMORS IN INFANCY.

A number of interesting cases have been reported by Charon and Ledeganck in the *Bull. de l'Acad. Roy. de Med. de Belgique*, 1878, t. xii. p. 5, p. 348 (obl. f. chir., No. 38, 1878). The first was one of medullary sarcoma of the right kidney in a child of five months. A tumor had been observed for some months in the right iliac fossa, rounded, movable, slightly tender on pressure, occasionally showing pseudo-fluctuation. Later the growth increased in size and became nodular. Urine normal. Death at eighteen months, from marasmus. Autopsy showed the tumor the size of a man's head, preserving the kidney

form. The second case was that of carcinoma of the left kidney in a child of four years, the tumor being the size of a child's head, slightly movable, somewhat hard, with a nodulated surface, reaching downwards to the crural ring, upwards to the ninth rib, back to the vertebral column, forward to several finger-breadths beyond the navel. Punction gave exit to bloody purulent fluid. The child had had fever and diarrhoea for two months. The subsequent history was unknown. The third case was one of carcinoma of the inferior maxilla in a child two years of age. The child died after four months, of marasmus. Autopsy showed the left kidney the size of two fists and containing a soft cancerous tumor. The fourth case was one of cancerous adenitis, of encephaloid character, developing in a child of five years. It first appeared in the knot of glands about the posterior tibial artery, but afterwards tumors were developed along the aorta, in the cervical region, etc. The child died within two months. This case is accompanied by pictures. A fifth case was one of congenital sarcoma of the face. The newly-born child showed an egg-sized tumor in the inner angle of the left eye. Bulb-intact; the right half of the nose and the cheek were involved. In ten days, the tumor, which was superficially fissured, spotted, yellow, and soft, reached the forehead and lips, and began to extend over the left side of the face. Death occurred on the twentieth day. Section showed miliary tubercles in enormous quantity in the subcutaneous tissues, pleura, mediastinum, and pericardium. Brain normal. The large as well as the miliary tumors showed the structure of embryonal germinal tissues. (Plates are given.) The sixth case was one of villous degeneration of the bladder in a child three years of age. The boy had suffered with difficulty of urination for six months. The catheter struck some stony body—the encrusted papilloma. The bilateral incision was practised and an enormous cauliflower excrescence was extracted. Two months later the growth was again quite large, extending from the wound. The child died three months after the operation.—*Philadelphia Med. Times*.

#### ISOLATION OF THE BOWEL.

In connection with the interesting case of isolation of part of the bowel during an operation by Professor von Nussbaum, I may be allowed to allude to a case which came under my observation last year. The patient was a soldier in the 26th Cameronians, and he died with all the symptoms of strangulation of the bowel. I was present at the *post mortem* examination, when the diagnosis was confirmed, a portion of the bowel having become strangulated in an opening in the mesentery about four inches in diameter. On careful examination, this opening presented a remarkable appearance. The edges of the aperture were rounded and smooth, and traces of a scar could here and there be seen along the margin. The bowel formed one side of the margin of the opening, and for about two inches there was no mesentery whatever attached to the bowel, which lay quite isolated, like a round smooth tube, and for two inches more there were mere cicatrised shreds of mesentery attached to it.

By the kindness of Surgeon-Major Reid, I was enabled to secure the specimen for the museum of the Infirmary. The history of the case showed that the patient had been kicked by a horse in the abdomen some years before death, and to this, no doubt, the gap in the mesentery must be traced. Possibly the extent of mesentery ruptured may have been larger than the existing gap indicated.

It is not easy to predict the course of events in the case of a clean cut wound such as that of Professor von Nussbaum, probably the bowel may become attached by adhesions to the cut mesentery; but the case I have described above indicates, at all events, a great danger to which the patient with a gap in the mesentery is always subject: viz., strangulation of some other part of the bowel.—D. Foulis, M.D., Glasgow.—*British Med. Jour.*

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#### TREATMENT OF IMPERMEABLE STRICTURE.

In the recent discussion on impermeable stricture at the Clinical Society, a speaker stated that Professor Dittel, of Vienna, had described all the methods of treatment which were being discussed. I cannot but think that he was in error, although the matter is not very important. Professor Dittel's report shows that, in some cases, perineal fistulæ were so fortunately situated that probes or bougies could be passed into the urethra behind the stricture, and thence forward through it. The operation of opening the urinary tract from the rectum and passing a soft instrument forward through the stricture and out at the external meatus, the other end being carried into the bladder, originated in Birmingham. The principle I advocate is that, in exceptional instances, the "membranous" urethra in some cases, and the bladder in others, is readily opened from the rectum. Only a few lines of tissue separate the finger in the rectum from the instrument in the urethra, the tip of the finger being carried to the depression between the anal sphincter of the prostate gland. In some cases, I have found the distended bladder itself coming down to the sphincter; here incision with a bistoury would be as safe as puncture with a trocar, and may be followed by the introduction of the finger and the passage of an instrument forwards from the internal meatus to the external. Furneaux Jordan,—*The British Med. Jour.*

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#### JAUNDICE DUE TO THE PRESENCE OF LUMBRICI.

The patient in this case, a boy aged 6, was brought to me on Oct. 10, with symptoms of obstructive jaundice. On inquiry, I learned that he had been ailing and generally out of sorts for a week, complaining of abdominal pain and headache, and of feeling very tired, with loss of appetite, etc. The bowels had been relaxed, and the skin gradually becoming more yellow since the onset of the attack; there was no sickness or nausea; the motions were very pale, and the urine of a very dark color. From some of the above symptoms, I suspected the presence of some specimens of the *ascaris lumbricoides* in the alimentary canal, and, on inquiring into the history of the patient, I found that he had passed several round worms about four



or five months previously. I ordered a powder, consisting of three grains of santonin and one grain of calomel, to be taken. Two hours subsequently to taking the powder, the child vomited, and during the day the bowels acted three times, the motions being still of a pale color. He complained to his mother that everything looked yellow. On Oct. 11. he passed two large worms, twelve inches long, and the powder was repeated. On the following day four lumbrici, nine inches long, were passed; the child being still slightly jaundiced, and the motions pale. On October 14, the jaundice had all but disappeared, and the motions had improved in color, no other worm being passed. On October 16th, the boy was quite well, and the motions had resumed their normal color. The cause of the jaundice here is, perhaps, open to doubt; but, in my opinion, it was produced either directly or indirectly, by the presence of worms in the intestines; probably a worm had entered the common bile-duct, and so caused biliary obstruction; or, possibly, the mass of worms had occluded the orifice of the duct with the same result; or, again, the irritation set up by the presence of the parasites, had produced a temporary catarrh of the duct, and so caused the jaundice. I have thought the case worthy of record, as possibly, the presence of the lumbricus is a more frequent cause of transient jaundice in children than is usually supposed, and especially so in localities, as is the case here, where the lumbricus is of very common occurrence. R. L. Batterbury, M.D.—*The British Medical Journal*.

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CASE OF SPLENOTOMY.

BY  
W. C. ARNISON, M.D.

T. K., 37, was admitted on August 29th, 1878. He was a healthy man until last autumn, when he received a blow in the left side, below the ribs, since which time he suffered pain, and his health failed. A few months ago, he noticed a hard tumor in the left side, which grew larger. His family history was good, and he had been a fairly sober man. He never had ague, nor had he been in ague districts.

The left side of the belly, from about an inch below the nipple to the crest of the ilium and to the median line in front, was entirely filled by the spleen; its surface was smooth, and it could be moved by pressure on its posterior border to the left of the spine. Ascitic fluid occupied the abdominal cavity, and was interposed between the spleen and the abdominal wall. The patient was of fair complexion, of waxy pallor, emaciated, and the microscope showed the presence of leucocythæmia. His appetite was fairly good. He had occasional diarrhoea. He had been under the care of Mr. Anthony Bell, who requested me to see him, with a view to his removal into the infirmary and undergoing splenotomy. It is almost unnecessary to say that persevering medical treatment had been adopted. The formidable nature of the operation, and its attendant dangers, were fully placed before him; but he insisted upon it being done, and, after consultation with my colleagues, medical and surgical, the operation was performed on September 29th.

Chloroform having been administered, an incision was made in the median line, extending about two inches on each side of the umbilicus. I then passed my hand around the spleen, and found it free from adhesions, the incision was then enlarged and the rectus muscle cut across, the artery being held and secured before the transverse incision was carried through the peritoneum. The diaphragmatic and capsular connections were carefully torn through, and the spleen then easily turned out; it was held up while the vessels, which were considerably enlarged, were tied with three whip-cord ligatures; two large sponges were then held round the pedicle, which was divided and the spleen removed. Much difficulty was now experienced in finding and securing one or two bleeding points, which seemed to be in the torn peritoneal connections, and were, of course, very deep. They were at last secured, the belly carefully sponged out, and the wound closed by interrupted sutures. The operation was conducted antiseptically, and occupied seventy minutes, the greater part of that time being spent in securing the bleeding points. I had the kind assistance of my surgical colleagues and of the house-surgeons.

The patient was placed in bed with a pulse of 98, and of fair strength. On recovering from chloroform, he complained of severe abdominal pain, which was relieved by injecting one-fifth of a grain of morphia; but he never seemed to rally from the shock. About four hours after the operation, Mr. Dixon, Senior House-Surgeon, transfused by gravitation two ounces of milk freshly drawn, provision having been made for this in anticipation that it might be required. No more milk would flow into the vein. The pulse rose for a few minutes, but quickly fell, and death occurred five hours after the operation.

The symptoms pointed to shock rather than to bleeding as the cause of death; but the body was removed before this supposition could be verified by *post mortem* examination.

The spleen weighed 7 lbs., 13 oz. After its removal, ten ounces of blood drained out of it.—*The British Med. Jour.*

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## CORRESPONDENCE.

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### ACUTE ALCOHOLIC POISONING.

SYRACUSE, N. Y., Dec. 13th, 1878.

*Mr. Editor :*

DEAR SIR: The publication of the following case, if not of much scientific interest, may yet be of service to some who would become acquainted with a painless and inexpensive method of suicide.

At one o'clock on Sunday morning, Dec. 8th, 1878, J. M., aged 23, a large and powerful man, was discussing the alcohol question with some companions in a drinking saloon.

He asserted that he had known men who could drink a quart of whiskey at one time without harm and that he could do it.

Some doubt being expressed by one of the party, he took a decanter from the counter and drank in quick succession glass after



glass until he had emptied it. It contained, according to the sworn statement of the landlord, about one pint of rye whiskey.

The party being then ordered to leave the house, J. M., after being refused another drink, walked from the room apparently sober. A few minutes after, he was found lying on the steps at his boarding-house, not many rods from the saloon, helplessly drunk. By the time he could be taken up stairs he was unconscious and comatose. Death occurred at 5 A. M., four hours after the poison was taken.

At the post-mortem sixteen hours later the scalp and brain were found to be considerably congested, the latter showing, on section, numerous red points. The stomach was more than half filled with an alimentary mash consisting largely of onions—an evidence of fair appetite previous to the fatal drinking. All the organs were healthy. A strong odor of alcohol pervaded the different cavities. This was especially noticeable on cutting across the large blood-vessels at the base of the heart.

WM. T. PLANT.

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### NEWS ITEMS AND NOTES.

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**Successes of Antiseptic Surgery.**—Professor Volkmann, of Halle, relates *Sammlung Klin. Vorträge*, 117–118 a series of seventy-five compound fractures treated during four years by conservation under Lister's antiseptic method, without the loss of one patient. The result is the more remarkable, that the fractures were in many cases into joints. In all cases, the skin was shaved, soaped, washed, and cleaned with carbolic acid, extensive effusions were incised and drained; the wounds were enlarged with the bistoury so that every corner could be cleansed with the carbolised stream of water; splinters were removed; sharp points were taken off; and a large drainage-tube was introduced down to the bone, but not between the fractured ends. The dressings were applied under the spray, and were at first changed every twenty-four or forty-eight hours, afterwards at longer intervals.—*The British Medical Journal*.

**The Cost of the Antiseptic System.**—The cost of remedies, especially in the case of hospitals, is a question not to be altogether disregarded. The late Professor Syme used to say that the cost of sarsaparilla to Bartholomew's Hospital was 1,500 pounds a year, as he regarded the drug as practically useless, and was accustomed to say so, he made the wisdom of the surgeons in ordering it at such expense appear to disadvantage. We gather that the cost of the antiseptic system in the Glasgow Royal Infirmary, where it is very faithfully carried out by some of the surgeons, has excited the serious consideration of the managers. Of course the question of cost can not be considered apart from the question of use. Accordingly, we gather that an investigation is proceeding with the view of determining both sides of the question. The result will be of great interest to all concerned in hospital administration, and, it is hoped, will be published, with whatever precautions may be necessary to prevent misconstruction.



The field of observation enjoyed by the surgeons of the Royal Infirmary is a very large and important one, and capable of yielding very valuable information on this subject.—*London Lancet*.

**Membranous Croup.**—Dr. West, in some remarks he made at the Royal Medical and Chirurgical Society, after the report of the committee for investigating the relations of diphtheria and croup was presented, is reported to have said that membranous croup was much more common in country places, as Sussex, than in large towns like Liverpool. It may be interesting to state that membranous croup is by no means uncommon in Liverpool, at least during the last few years. For instance, I have notes of ten cases admitted into the Liverpool Children's Infirmary, during the first seven months of this year, on which tracheotomy was performed, seven proving fatal. In all of the fatal cases, false membrane was found, and it was either seen on the tonsils or strongly suspected in the larynx of the three who survived. During the same period, I knew of several cases in private practice. Henry Ashby, M. R. C. S. Manchester.—*The British Med. Jour.*

**The Medical Profession vs. Women.**—The Prague Board of Health is composed of brave men, as witness the following edict by them in the interest of dress reform; "Considering that trailing robes raise a dust in the street, which is highly prejudicial to the public health, it is henceforth forbidden to wear the robes in question in public thoroughfares."

No American Board would have the temerity to enact such an ordinance, and even in Prague there are vague apprehensions of a riot.—*Michigan Medical News*.

**Dr. Pierce's Prescription for Female Complaints**—Dr. Pierce's favorite prescription for the cure of chronic weakness and complaints peculiar to females, consists of 280 grains of a turbid greenish-brown fluid, with a bulky deposite of the same color, made according to the following receipt: Savin tops, 10 grams; larchagaric and cinnamon, of each 5 grams; China Jean ash cinchona bark, 10 grams; boil with sufficient water to make 220 grams when strained. Dissolve in the filtrate gum arabic, 10 grams; white sugar, 5 grams, and add tinct. digitalis and tinct. opii, of each 2 grams; star anise oil, 8 drops; 90 per cent. spirit, 45 grams.

**Dr. Matthews Duncan**, having accepted the invitation to assume the duties of Obstetric Physician to St. Bartholomew's Hospital, will settle in London.

**Body-Snatching.**—During the consideration in the House of Commons, of the report of the Committee on the Anatomy Bill of 1832, Lord Macauley, in defending the measure against the attacks of those who alleged that it was designed to benefit the rich at the expense of the poor, made use of the following argument. "What are the evils against which we are attempting to make provision? Two especially; that is to say, the practice of Burking and bad surgery. That a man,

has property, that he is likely to be missed, and sought for, are circumstances which secure him against the Butcher. The more wretched, the more lonely any human being may be, the more desirable prey he is to those wretches (the Burkers). It is the man, the mere naked man that they pursue. Again, as to bad surgery, that is, of all the evils, the evil by which the rich suffer least and the poor the most. If we could prevent disinterment, if we could prevent dissection, if we could destroy the English school of anatomy, if we could force every student of medical science to go to the expense of a foreign education, on whom would the bad consequences fall? On the rich? Not at all. As long as there is in France, in Italy, in Germany, a single surgeon of eminent skill, who is addicted to dissection, that surgeon will be in attendance whenever an English nobleman is to be cut for stone. The higher orders in England will always be able to procure the best medical assistance. If the education of a surgeon should become very expensive, if the fees of surgeons should consequently rise, if the supply of regular surgeons should diminish, the sufferers would be, not the rich, but the poor in our country villages, who would again be left to mountebanks and barbers, and old women and charms and quack medicine."

**Medical Reviews in Lay Newspapers.**—On a recent occasion we felt it incumbent upon us to remonstrate against the republication in the columns of a newspaper of a medical paper which appeared in our professional pages. The growing practice of reviewing medical books in lay journals calls for notice in the same sense. We are very far from granting any member of the profession the just reward of his labor, and it may be admitted that, to be profitable, the reputation earned must, to some extent at least, be recognized by the great community of which he is a useful member. Meanwhile, it is of the highest concern to medicine, as a calling, that practitioners shall be known to the public by their work, rather than their words, as curers of disease, instead of writers on professional subjects, who, while addressing their fellow-laborers, in the field of science, are, in fact, talking over the hedge to the public, with a view to self-glorification and personal advantage. As a rule, it is inexpedient that books which are not meant for general reading should be reviewed in the lay press, and we are sorry to notice a growing tendency to the friendly criticism of works on professional subjects in the provincial journals. A consideration which may be fairly urged on the notice of editors who encourage this method of publicity, arises from the fact, that when the literary production of one local practitioner is reviewed, his colleagues in the district who have not rushed into print, are placed at a serious disadvantage. The man who has written a book must, it is supposed, be the better practitioner, whereas, perhaps, the truth lies in the opposite direction. Lay journals will do wisely to avoid setting themselves up as courts of appeal for rival practitioners, and leave the reviewing of medical works to those by whom alone their value can be accurately assessed.—*Lancet*.

**Fatal Occurrence on Board A Leith Steamer.**—A private letter



from Saigon, China, of date August 17th, says the *British Medical Journal*, states that the following terrible occurrence took place in that port on board a Leith steamer early in the month. A chinaman went down the hatchway on the cargo, and at once dropped down dead; an Englishman followed to render assistance, and he shared the same fate; a third, a fourth and a fifth successively descended, and all—one Chinaman and four Englishmen succumbed to the mysterious and unknown influence. It turned out that the cause of the fatality was carbonic acid gas, generated from a wet cargo of pepper and some kind of bark. The cargo, from Singapore, had been on board only three or four days.

**Use of Iodoform.**—Dr. Cuffer extols the anæsthetic action of iodoform in fissura ani, hæmorrhoids, laryngeal affections, and ulcerated cancers, especially those located on the face, in the mouth, breast, and cervix uteri; also its undeniable action on simple ulcers. In the affections of the larynx and uterus he employs a ten per cent. solution of iodoform in ether, by means of spray.

**Arsenious Acid and Dialyzed Iron.**—Edward Hirschsohn, of Dorpat, has made numerous experiments in regard to the behavior of arsenious acid toward dialyzed iron. He sums up his results thus: "These experiments prove that *arsenious acid does not enter into combination with dialyzed iron*, either alone or in the presence of acid. The addition of ammonia or magnesia, however, causes the arsenic to enter into an insoluble compound. In consequence of the results in experiments 31 to 40, I desire to warn against the use of dialyzed iron as an antidote in poisoning by arsenic, because the resulting combination parts with its arsenic in presence of acids much more readily than the ordinary antidote for arsenic." The details of these experiments will be found in *New Remedies* for November.

**Ovariectomy—Sponges and Instruments in the Peritoneal Cavity.**—From Mr. Spencer Wells' Lecture on Ovariectomy, as given in an abstract by Dr. Tandell:

"The number of sponges is a matter of moment; they ought to be carefully counted. There are cases where a sponge has been found in a patient's abdomen after death. Once such a case occurred to himself. He was just finishing, when a gentleman said a sponge was left in. He asked the nurse if all the sponges were there? She answered, they are all here—I have sixteen. The cavity was explored for a sponge and none was found. The wound was sewed up. Late in the evening word came a sponge was missing—a sponge the nurse "knew." The patient seemed pretty well. Next morning she was worse. Two stitches were taken out and the finger inserted, and there was the sponge, the movements of the intestines had brought it to the wound. The patient did well.

Another time a sponge was missing, the abdomen was carefully explored, but no sponge was found. The nurse was positive; so another hunt was made for it, and it was found at the back of the liver,



betwixt the liver and diaphragm. It was a small sponge, and since then Mr. Wells objects to too small sponges. \* \* \*

As to accidents which may happen: A sponge has been left in the abdomen, as has been seen. Once, too, several pairs of torsion forceps had been used, a pair were found missing on counting them. This discovery was made two hours after the operation. The patient was examined, but all seemed well; she had a bad night, however; so on the pretext of changing the dressings, methylene was given, the wound opened, and then the forceps were found "wrapped up in the omentum." The patient got well.

He comments thus: Pray, let me use this confession to impress upon you the necessity not only of counting sponges, but of counting instruments also, that you may avoid any such painful experience."

# THE HOSPITAL GAZETTE

AND

ARCHIVES OF CLINICAL SURGERY.

A WEEKLY JOURNAL OF MEDICINE, SURGERY AND THE COLLATERAL SCIENCES.

EDITED BY

EDWARD J. BERMINGHAM, A.M., M.D., and FREDERICK A. LYONS, A.M., M.D.

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## LECTURES.

### A LECTURE ON PHTHISIS.

Delivered at Bellevue Hospital Medical College, New York.

BY

ANDREW CLARK, F. R. C. P., LONDON.

(Reported for THE HOSPITAL GAZETTE.)

DEFINITION—ACUTE TUBERCULOSIS NOT PHTHISIS—TUBERCULAR PHTHISIS—PNEUMONIC PHTHISIS—FIBROID PHTHISIS.

GENTLEMEN,—In exhibiting to you these drawings and setting forth the views which I entertain, I do not think that in the presence of such distinguished men I should be able to contribute anything new. Still I desire to give you an outline of my views, and to see how far they may be borne out by your own experience.

I should have preferred to have begun this discussion with a historical view of the theories respecting the varieties of phthisis, but my limited time will not permit me to do this. I shall simply give an outline of my subject, and leave you to fill it up by your own experience hereafter.

By phthisis I mean the succession and progression of symptoms produced by a more or less circumscribed non-malignant deposit in the lungs. I do not claim that this is a perfect definition, but it is a good working definition. You will notice that in this definition I have shut out completely acute tuberculosis. This I have done purposely, as in its methods of advancement and progression, and in its post-mortem appearances, and in its whole clinical history it is allied more to fever than to phthisis. It is no more related to phthisis than is pneumonia, and I doubt whether any one with a large experience could remember more than one or two cases in which the little tubercles throughout the body have run together or broken down into cavities. I do not say that this never happens, but I believe that it occurs so seldom that it may be left out of consideration, and in considering phthisis I omit altogether the disease known as acute tuberculosis. In relation to the experiments made upon rabbits some years ago, of injecting tuberculous matter and pro-

ducing what was known as tuberculosis, I would say that about the same time I performed similar experiments myself, and found that any matter injected into a rabbit's neck would produce symptoms similar to acute tuberculosis. The inoculation of pus was followed by the appearance throughout the body of little bodies resembling tubercles, and most writers still believe that this disease is acute tuberculosis, and I mention the subject here in order that I may protest against such views. In all the animals the symptoms produced were as follows:—After the inoculation, slight fever, which was produced by the shock of the operation. At the end of eight or nine days an eruption of tubercles appeared, which passed away entirely if the animals were well-cared for. This is not by any means properly called acute tuberculosis, as this disease as it appears in adults always develops fever, which progresses regularly and terminates fatally in from three to six weeks.

When we examine lungs in the dead house, of patients who have died of phthisis, we can classify them into three distinct groups. In one the dominating anatomical element is what is known as tubercle. In the second the dominating element is pneumonic exudation. In the third the dominant element is fibroid tissue. We may, therefore, classify phthisis, according to these anatomical appearances, into:—tubercular phthisis, pneumonic phthisis, and fibroid phthisis.

When tubercles are deposited in the lung they irritate it, and produce secondary changes, affecting either its cell structure and producing some variety of pneumonia, or affecting its fibrous structure—the connective tissue—and producing some fibroid complication. These secondary changes occur in various degrees, so that in some cases we will have the pneumonic material predominating, while in others the fibroid material will be in excess; and this is an important point bearing upon the clinical history of phthisis. As regards pneumonic phthisis, we have the same effect. When pneumonia occurs and the pneumonic exudation is not absorbed, but becomes disintegrated and forms a new source of irritation, which produces a secondary irritation. The same thing may be said of fibroid phthisis, although it occurs alone most frequently, it sometimes has the tubercular or pneumonic changes as secondary complications.

There is another complication to which I wish to call your attention here. We all know what is meant by tubercle, but we do not all know what is meant by pneumonia, of which I think we may enumerate three varieties. First, croupous pneumonia, which affects the base of the lung, runs an acute course in seven to nine days, and terminates usually by the absorption of the exudation. The second variety is known as caseous pneumonia, the exudation in which has the appearance of moist cheese. The exudation in the first variety contains a cell similar to the white cell, while in the second form the anatomical element consists of an epithelial-like cell. The third variety of pneumonia is known as catarrhal pneumonia, and the exudation which occurs in it may undergo retrogressive changes, and



bring the case within our definition of phthisis. But as this point is not as yet a settled one, I shall omit the discussion of this form of pneumonia, and shall discuss only the first two varieties,—the croupous and the cheesy,—as conditions in phthisis.

I think that the different appearance of the three groups which I have described is distinct enough to warrant the division, but there is another difficulty. Many pathologists in France, England and America claim that although these appearances are unlike, they are, histologically, homologous,—that caseous pneumonia is simply infiltrated tubercle, and even that the fibroid variety is a conversion of the tubercles into fibroid material, and that from this material tubercle may be developed at any time.

I do not believe that the forms of pathological changes in the lungs are one and the same, and I think I have a much higher argument in support of my views. I think that the truest criterion to the difference in pathological products is not to be found in an anatomical structure, but in the life history of a part. The forms of anatomical expression are few,—cells, fibres, granules,—while the dynamic states of which they are an expression may be many. When we place a section of a tubercle and a section of a Peyer's patch from a case of typhoid fever under the microscope, we cannot distinguish between the two. The morphological changes are the same, but the clinical histories are widely different, and I therefore repeat that the true criterion to the difference in pathological products is not to be found in their anatomical structure but in their life histories.

The characteristic anatomical element of tubercle is the lymphoid cell; that of catarrhal pneumonia is the epithelial cell, and that of fibroid phthisis is a fibro-cellular mass. Can these pathological conditions, which we recognize in the dead-house, be distinctly made out in the wards? If I follow these distinctions into the wards, I recognize more distinctly than in the dead-house the three groups of phthisis which I have classified. To illustrate this I will sketch the history of a case from each. First, I will give you a case of tubercular phthisis. We shall suppose the patient to be a young girl eighteen years of age, who has been ailing some time, and has been losing flesh, strength and color. Her conjunctiva is pearly, flushed cheek, and is easily exhausted. A physical examination of the chest at this stage reveals nothing to account for this general constitutional disturbance. Later in the course of the disease, she has fever in the evening. Still no lung trouble can be discovered. Later still, perhaps six months after the onset of the trouble, crepitation is discovered at the apex of one lung, and the case is known to be one of tubercular deposit, and is followed by the accompanying symptoms of such a condition,—cough, expectoration, &c. The disease steadily progresses, the constitutional symptoms predominating over the local ones, and the case comes to an end in the course of three or four years. The rapidity of progress of a case of this kind depends upon the amount of secondary complication, and if we can keep the patient from having pneumonic or fibroid complications, we may prolong his life many

years, as I verily believe that tubercle in itself seldom proves fatal. If fibroid complications supervene, the case will progress slowly, and the patient may live for a long time, but if the complication be pneumonic, fever and wasting soon bring the case to a fatal termination.

Let us next consider the clinical character of pneumonic phthisis, and first I will trace a typical case of croupous pneumonic phthisis. I have here the lung of a patient who died in the London Hospital. His name was McLatosh, and upon admission to the hospital he had all the usual signs of pneumonia, except that dulness over the seat of the disease was more complete than usual, and there was diminished tactile vocal fremitus instead of increased. There was feeble breathing instead of bronchial, no tubular breathing, diminished vocal resonance, considerable dulness, and marked constitutional disturbances. I diagnosed the case as one of pneumonia, and my prognosis was unfavorable, for I had observed that when there remained diminished tactile fremitus, with the physical signs I have mentioned, that the lungs were unable to perform their function. In this case the patient felt well, although there were still diminished breath sounds and vocal resonance. In this condition he was discharged, but was readmitted in about two months, the case progressed simply as pneumonia, in which the exudation was not absorbed. The pneumonic lung then broke up. I had noticed that where a pneumonic exudation broke up, evidences of tubercle appeared in the other lung within a month, and as there were evidences of some disturbance in the other lung, in the case of this patient, when the exudation broke up, I predicted that tubercle was developing. I was wrong, however, as at the end of 22 months, when he died, we found simply lobular pneumonia. This I consider a typical case of pneumonic phthisis, and the diagnosis of such cases is not difficult. Persistent slow inflammation at the base of the lung, followed by symptoms of phthisis, and the apex of both lungs being involved, will make you safe in diagnosing croupous pneumonic phthisis, that is in the early stages of the disease. Later, the symptoms are due to the destruction of lung tissue, and it is difficult to make out these distinctive changes.

We next have caseous pneumonic phthisis, the history of which is almost the reverse of tubercular phthisis, in which the constitutional symptoms are marked, and the local signs slight. In caseous pneumonia we have marked local signs, from  $\frac{1}{4}$  to  $\frac{1}{2}$  of a lobe being solid, dulness being found on percussion, and tubular breathing, with or without crackling; and you may have bronchophony. The patient looks well, is fairly nourished, and complains only of his cough.

We may have a case of pneumonic phthisis with consolidation, where the patient is well enough to engage in work, being little troubled constitutionally. Later, large cavities form in the caseous pneumonia, and the opposite lung may become affected either by tubercular deposit, or patches of lobular pneumonia. Sometimes these cases are slow, subacute, but there is a certain proportion which is very rapid, as in those where the deposit in the upper part of the lung breaks down rapidly, and the patient dies within six weeks. These



are cases of acute caseous pneumonic phthisis, and correspond with the galloping consumption of our forefathers.

The rule with cases of tubercular phthisis is that they terminate fatally, and the exceptions to this rule are few. In cases of pneumonic phthisis, the greatest number of recoveries take place. Sometimes the exudation undergoes fatty metamorphosis, and is absorbed. Sometimes the exudation undergoes a fibroid change, and becomes a hardened mass, and sometimes this fibroid change is developed while destruction is in progress, when the subsequent history of the case will be the same as it would be were it a case of tubercular phthisis undergoing fibroid changes.

The clinical characteristics of fibroid phthisis are as follows: It is without fever, as a rule, and gives rise to little general disturbance. Usually there is a history of some inflammation, a pleurisy, or unabsorbed pneumonia which has undergone the fibroid change, or it may be irreducible recurring bronchitis which has caused the fibroid deposit; or it may be due to syphilis or cancer. It usually affects but one side of the chest—in 99 cases out of 100 it is unilateral. The local signs are marked contraction, with friction sounds. The clinical history is best shown by the following case:—

Here is a drawing of a lung which had undergone the fibroid change, it was surrounded by an enormously thickened pleura, and had a deposit of fat an inch thick on its summit. When I first saw the patient, some 23 years ago, he was a stout man, 15 or 16 stone in weight, and complained of cough and spitting of blood. I examined him carefully, but could detect nothing, and thought that he might be suffering from some internal growth, as an aneurism. I then learned that he had had a fractured rib. Some months later I discovered a little crepitation, and next a little contraction of the right side. He next had occasional severe paroxysms of coughing, with a foetid muco-purulent discharge from the lung. The right side contracted, and the heart was pulled towards it. He grew steadily worse for 10 years. At the end of that time, in addition to the symptoms before mentioned, he had severe pain in the right side, and the cough was much worse. The right arm and hand were swollen, and there was dulness and bronchophony on the right side, accompanied by an increased vocal resonance and metallic crepitation. The next complication was albuminuria, which I have often noticed in the progress of fibrous phthisis. Soon after this the patient died, and at the autopsy we found all the organs healthy except the kidneys which were congested and hard and the right lung. The latter showed no tubercles, and it was evident that the fibroid change had commenced in the pleura, and had then been communicated to the lung, and it was evidently caused by the fractured rib.

Another similar case which I now remember, was that of a patient who had been treated several years before for tubercular phthisis. He had had several attacks of bronchitis and pleurisy. When I first saw him examination revealed dulness on percussion, diminished vocal fremitus, bronchial breathing and bronchophony, a metallic crepitation to the resonance, paroxysmal cough, vomiting and dysp-



nora. He afterwards had an attack of acute bronchitis, accompanied by albuminuria, from which he died. At the autopsy the right lung was found to be perfectly solid, and it was traversed by dilated bronchial tubes, and in some parts there were ulcerated cavities.

I will now relate three cases at present under my care in the London Hospital, which will illustrate one of the modes in which fibroid phthisis arises. The first is that of a pale, delicate man, who is liable to cough, but who feels pretty well, but at the same time he has scarcely any lung to breathe with. The chest is contracted, and examination shows that he has a semi-solid, contracted lung, with dilated bronchial tubes. The other symptoms are similar to the other cases. The second case is that of a man having a contracted lung, with crepitation, bronchial breathing and bronchophony, but feeling in fair health. The third case is that of a man who has an irreducible fibrous pleurisy, but feeling perfectly well. There is a friction motion on palpation, and a friction sound over the whole chest. This is the way all these cases begin. They first complain of pain in the side, with or without slight effusion, into the pleural cavity, and in many cases the double friction sound. Treatment in such cases is of no avail.

I think I have shown you that there is sufficient reason for the pathological classification I have made, and I also think that you will recognize the clinical distinctions.

## CLINICAL REMARKS ON CRETINISM.

BY

ABRAHAM JACOBI, M.D.,

Clinical Professor of Diseases of Children in the College of Physicians and Surgeons, New York.

The following is the history of the next case to which I ask your attention to-day.

Frank H——, 8 years of age. As an infant he seemed to be healthy up to eight months, when he had a slight convulsion, as the result of an injury received. The mother noticed that he seemed weak for about three weeks after this; but he then gradually recovered his strength. When four years old, he had an attack of measles, and when five, of varicella. He began to walk when he was nineteen months old; but although he could say single words at a comparatively early age, he was not able to combine them in even the shortest sentences, until he was four years old.

The mother thinks that he is not as bright as other children of his age. He learns anything with great difficulty, but it would seem that his powers of memory are unimpaired, or at least to any great extent. He is very irritable and quick-tempered, and sometimes becomes very violent when enraged. His appetite is good, and he usually sleeps very well. Occasionally, (but only at long intervals) he is troubled with nocturnal enuresis; and he has some naso-pharyngeal catarrh. The pupils are normal, and there is no muscular paresis, and no valvular murmur of the heart.

In regard to the learning to talk so late, I may say that in some instances even where children are of unusual intelligence, this is the

case ; but, as a general rule, children of good intellectual capacity begin to talk comparatively early. Here, as we have just seen, the mother does not think her boy as bright as other children of the same age, and therefore, we naturally associate this with the other symptoms denoting an impaired mental development. In a case like this a good deal depends on whether we can trace the trouble back to foetal life or not. Here it would seem that there is no ground for attributing it to that period. The mother has had no other children, and she says that she noticed that this one smiled about the usual age (say at five months). He seems to have had some sort of spasmodic attack when eight months old ; but the effects of it soon passed off, and he walked at the age of nineteen months.

On looking at the child we are first struck with the narrowness of the head and face ; and the mother states that in this respect the boy resembles his father. When, on examining the head more carefully, we find indications that the anterior fontanelle probably closed at an unusually early age. The supra-orbital ridges are quite prominent but the upper part of the forehead is narrow and retreating. We also find the hard palate very flat, and where this is the case, we expect to see also an unusually short vomer. This makes the insertion of the nose very low, and is one of the characteristic features of cretinism. The teeth and alveolar processes, as well as the bones in general are extremely hard, and present a clumsy appearance. In cretinism there is very early ossification between the sphenoid and occipital bones ; what Virchow terms the tribasilar synostosis occurring at the base of the skull. Such cases are characterized then by low vomer, retracted nose and clumsiness of the bones in general. As we would naturally expect, the base of the brain is abnormally short. Of course there are various degrees of severity in cretinism ; but when the condition is well marked, the case is usually a hopeless one.

As to the origin of the trouble in the patient now before us, we are not able to trace it back to any foetal or infantile encephalitis. The convulsions spoken of seem to have been merely the result of an accident, and to have been followed by no further trouble ; so that we are forced to fall back on something else. The explanation, I think, is found in the present condition of the brain, as indicated particularly by the very marked flatness of the palate. The prognosis here is poor. Medical science can do nothing for this boy ; and for all that can be accomplished in his case, we must look to careful and patient training on the part of his parents or teachers.

## HOSPITAL RECORDS.

### PENNSYLVANIA HOSPITAL, PHILADELPHIA.

Service of JACOB M. DA COSTA, M.D.

Physician to the Hospital.

(Reported for the Hospital Gazette.)

#### A CASE OF BRIGHT'S DISEASE, WITH REMARKABLE PULMONARY AND ENTERIC COMPLICATIONS.

The patient, a young colored boy, was brought into the house from ship board. The history of the case previous to its admittance to the wards was far from complete. His urine was found to contain albumen, and he bled considerably at times from his nose. Diarrhœa was also present. Upon examining the abdomen, it was with some surprise that marked evidences of peritonitis were found, while auscultation and percussion of the lungs revealed a pleuro-pneumonia of a lingering kind, or more exactly, a pneumonic consolidation with pleurisy.

The great question in connection with the case which presented itself for solution was whether the peritonitis and lung complication were part and parcel of a typhoid fever process, or whether they were the result of something extraneous, such as disease of the kidneys. In other words, were the symptoms mere coincidences or not?

Dr. Da Costa, after careful examination, decided that the case was not one of typhoid fever, and that the pulmonary and enteric symptoms were due partly to the depressed condition of the patient's general health, but mainly to disease of the kidneys.

The boy gradually got better, the peritonitis subsided, the abdominal tenderness grew less marked, the fever left him almost entirely, the diarrhea disappeared, and he began to look forward to a rapid convalescence. It was then for the first time that doubts were felt and expressed as to whether the lung trouble was by any means as acute as had been at first suspected. The curving of the ends of the ribs, the general cachexia and the unexpected arrival of a certificate showing that the patient's statement of his case was not the correct one, and that he had been sick much longer than he allowed, all joined in pointing to the probably chronic nature of the pneumonic consolidation and the pleurisy. So too with regard to the peritonitis.

Another important question also arose—Was there not latent tubercle in the case? This question was based upon the unusual history of the lad after his admission to the wards.

The patient was at length almost in a condition to leave the hospital, when being to some indiscretion in diet—his friends bringing him something indigestible—enteric symptoms developed, and he seemed to sink very rapidly from mere exhaustion. In a day or two he was dead.

At the post-mortem examination the *intestines* were most carefully examined. Peyer's patches in particular, without detecting a single lesion of typhoid fever. The peritonitis was found to be not simply an exudation of lymph. A few old tubercles were unearthed



from the peritoneum. There were, indeed, evidences of a recent acute attack of peritonitis, but the old attack had evidently been one of tubercular peritonitis.

Examination of the *lungs* revealed a chronic pleuro-pneumonia—the lung substance being solidified in places and the pleura thickened. There was no evidence of tubercular disease in the lung substance. One lung was perfectly healthy except for a slight pleurisy, which had to some extent compressed the lower lobe. The *heart* was small, but healthy.

The *kidneys* showed undoubted signs of chronic tubal nephritis, with commencing fatty changes.

The autopsy was thought by Dr. Da Costa to sustain fully his view of the case. The discovery of tubercles in the peritoneum, however, he thought had added a new element to the case. Owing to the presence of these tubercles it had not, perhaps, been proper to attribute so much to the state of the kidneys. The various complications, pulmonary and enteric, may have all been due to an old tubercular state of the system. The case, at any rate, was remarkable, and of unusual interest in a pathological sense.

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### PERISCOPE.

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#### FRACTURE OF THE CLAVICLE, FOLLOWED BY MYELITIS, PARALYSIS AND DEATH.

BY

WALTER R. S. JEFFERISS, M.D.

Miss H.,—aged 49,—single,—was in fair health on July 17th, on which day she was carrying a stoup of water up a flight of stairs. She had only lifted the stoup, and ascended one or two steps, when something gave a loud crack and her arm became powerless. On visiting her immediately after the accident, I found that she sustained a fracture of the left collar bone, which was broken obliquely about its center, giving rise to considerable displacement and swelling over the part. The fracture was very readily reduced, and the fragments were retained in position by suitable appliances. The elbow was fixed to the side, and the arm brought well upwards across the chest to the opposite shoulder, and retained there by a sling and other breast sheet. During the next few days, she complained of pains in the left hand, both shoulders and the neck, which I attributed to rheumatism. Her pulse was normal; there was no heat of skin, at least not of any moment; her appetite was unimpaired; she was restless at nights.

On July 23d, six days after the injury, in order to relieve the pain, I readjusted the appliances, and at the time observed that the integuments of the left side of the neck were much discolored, and the superficial veins seemed enlarged and very apparent over the site of the fracture, and for some distance around it. I could, however, find no preternatural pulsation or fluctuation. The pulse was felt at the wrist, and the left hand was comfortably warm. Suspecting that, perhaps, this might be a case of fracture from a preternatural brittleness of bone, in a person of rheumatic or carcinomatous diathesis, I enquired

particularly as to my patient's former health, and found it very satisfactory. She had never had any serious illness, and had no family history of cancer, rheumatism or paralysis.

From this time to the beginning of the fourth week, she went on satisfactorily, and at the fourth week I found the fracture had united. The bandages, with the exception of the sling, were removed, and the patient went to Edinburgh and Portobello for a change of air. She expressed herself as "quite able for the journey," although she was weak in general health, and anemic. The swelling over the site of the fracture was becoming less, and the yellow discoloration was passing away. During the first week or two after removal, she felt that the change of air was doing her good, and she walked out for about an hour each day.

On August 31st, she journeyed by tramway car to the seaside, a distance of three miles, when she took a little exercise on the shore, and returned in the same manner. On the way home she experienced great pain in the shoulders, and the same night she was very restless and sleepless. On the following day she complained of pain in the shoulders, feeling of tightness round the body, prickling through the body, especially in the fingers, which latter she described as feeling stiff and iron-like. Her face was flushed, the bowels were confined, the skin was perspiring. These symptoms continued with greater or less severity until September 6th, when both upper extremities became paralyzed, although she still had the use of the lower part of the body. On September 7th, the paralysis extended to the lower extremities, and also to the neck, as evidenced by the inability to work and stiffness of the neck. When she lay on her bed she could draw up the legs a little, but could not turn her head to either side; nor, indeed, was she able to turn herself upon her side. The skin was perspiring freely, her face was flushed, tactile sensibility was diminished, but the other special senses were quite normal; the extremities were warm, respiration was natural. She stated that she "felt as though she were going to fly at times."

On September 11th, the lower extremities and the bladder became quite powerless, and the catheter was required to be used for the next two days to empty the bladder. On Sept. 11th, the patient slept a good deal. She grew gradually worse towards night; the breathing became labored, and she died in a semi-conscious state on Sept. 12th. In conclusion I may mention that the very general nature of the observations as to the pulse, respiration and temperature in this case is due to no neglect on my part, but is attributable to the fact of the patient having passed into other hands after Sept. 1st. These gentlemen gave her every care and the best of treatment, and doubtless observed many things, which my imperfect opportunities prevented me from doing. Still, the few facts I have mentioned should tend to confirm the diagnosis. In the absence of a *post mortem* examination, it may reasonably be inferred that this was a case of inflammation of the lower portion of the spinal cord, and probably due to the concussion at the time of the accident to the clavicle, and kept up by the irritation at the site of the fracture. At the same time, it was

possibly a case of cancerous disease of the clavicle resulting in fracture, and that in turn causing extension of the same disease to the spinal column.—*British Med. Jour.*

ACUTE NECROSIS OF THE TIBIA—SUPPURATIVE SYNOVITIS OF KNEE  
—FREE INCISIONS WITH ANTISEPTIC TREATMENT—CURE.

BY  
CHRISTOPHER HEATH, M.D.

A thin, sharp-featured lad, twelve years of age, presented considerable swelling of the left leg, extending from the knee to the foot. There was much pain and tenderness over the anterior and inner aspect of the leg, down to the lower epiphysis. The ankle joint appeared free, but the knee was distended with fluid. His temperature was 101 deg. F.

This condition appeared to have resulted from a kick on the leg two months previously; he had suffered some pain during the last fortnight, and for a week had been unable to walk. The day after admission, the patient was placed under ether; a free incision was made over the tibia down to the bone, which was found to be quite bare. About six ounces of thick creamy pus were evacuated. A puncture was also made into the knee-joint, on each side of the patella, and two ounces of sero-purulent matter escaped. A horse-hair fasciculus was used for drainage; the wound was dressed antiseptically. The fluid from the joint contained large cells, with highly refracting fat-granules, and a large number of pus-cells. There were undoubtedly large numbers of micrococci, with perfectly distinct outline, partly in groups, partly diffused, others moniliform; they were apparently motionless. The pus from the leg contained a greater number of corpuscles and a large quantity of granular *debris* and micrococci, as above described.

No constitutional symptoms followed the operation, but slight effusion into the left wrist joint occurred; this lasted about three weeks, and subsided, without giving further trouble. Free discharge occurred from the wound in the leg, and the tibia became exposed; the knee-joint also, soon refilled, and a few drops of sero-purulent fluid continued to escape on gentle pressure, but the boy's health improved.

Three months after the patient first came under treatment, the effusion in the knee-joint had disappeared, the wound had freely granulated, and the tibia presented much thickening, but the general swelling of the leg, had, to a great extent, subsided.

At the end of four months, much new bone had been thrown out around the sequestrum, which was loose. The patient was placed under the influence of ether. Esmarch's bandage was applied to the leg, the sinuses were opened up, the new bone was divided, and the sequestrum was removed; this involved the whole thickness of the anterior part of the shaft; it had a worm-eaten appearance on both sides, and on its outer surface was highly vascular. Three weeks later, some more of the sequestrum was removed, and the wound was



dressed with chloride of zinc lotion. A month after the last operation, the wound had nearly healed by granulation. The patient was discharged seven months after admission, being convalescent, and with perfect movement of the knee-joint.

In a clinical lecture on this case, Mr. Heath directed attention to the importance of recognizing acute necrosis of the long bones in childhood early, since the disease ran its course rapidly, and was apt to lead to extensive loss of bone, and not unfrequently to pyæmia and death. Mr. Heath mentioned that Mr. Marcus Beck, who had the early treatment of the case in his absence, regarded this form of inflammation of bone as "a specific infective disease," which, if not treated antiseptically, was certain to kill. Without fully endorsing that view, Mr. Heath urged the necessity of prompt and vigorous treatment by early incision; and instanced a case brought by him before the clinical society, in which the entire shaft of the tibia died in a few days after a kick from a cow. The recovery of the knee-joint after suppuration within it was remarkable evidence in favor of antiseptic treatment; and although this had not been sufficient to prevent necrosis of the bone, which was probably irretrievably damaged before, it had undoubtedly enabled the patient to retain his limb, which would probably otherwise have had to be sacrificed.—*Br. Med. Jour.*

#### INFECTIVE PERITONITIS FOLLOWING PLEURO-PNEUMONIA AND WHOOPING COUGH, AND ATTENDED WITH INTESTINAL OBSTRUCTION.

By I. BURNEY YEO, M.D.

The occurrence of infective peritonitis as a complication or sequel whooping cough—or, more correctly, as a complication of a complication of whooping cough—is a sufficiently rare event to merit a brief record.

On the 7th of last July I was summoned into the country, to see a boy between eleven and twelve years of age, who was at school there, and was reported to be suffering from some complication of whooping cough. The history was, that he had been attacked with this complaint, in common with many of his school fellows, about three weeks previously; that on the 3d he had complained of pain in his left side, and in the evening his temperature had arisen to 102 degrees Fahr., and that on the 5th and 6th he appeared to be unusually languid and listless.

When I saw him on the 7th, I found him in a high fever; a bright flush on the left cheek; pulse, 160; respirations, 60; temperature, 104 degrees Fahr.; tongue slightly coated. He was coughing, but not at that time whooping; and he complained of pain in the lower part of the chest, on the left side. There was a marked tendency to diarrhoea, which persisted more or less through all the illness, with the exception of the last few days.

Examination of the chest revealed the existence of extensive pneumonic infiltration of the left lung, together with a moderate amount of fluid in the left pleural cavity.

By the 9th dullness had extended over the whole of the left lung continuously.

The treatment had so far consisted of small doses of aconite, in combination with quinine, hot poultices to the chest, and a moderate amount of stimulants.

On the 10th the symptoms of exhaustion became very urgent, with sudden threatening of cardiac failure, which was met and overcome by the free administration of champagne and brandy. There was also evidence of an increase in the amount of fluid in the left pleura, and the heart was noticed for the first time to be displaced to the right. Two grains of quinine were given every three hours, and the amount of stimulants increased. The patient was restless and delirious, the first part of the following night, but towards morning fell into a sleep, and woke much better in all respects. The temperature had fallen to 101 degrees, respirations to 44, pulse, 120. The tongue was cleaning.

On the 11th, the temperature again rose to 103 degrees in the afternoon, and the improvement of the preceding day proved to be only temporary; the physical signs remained unaltered.

On the morning of the 12th there was again a recurrence of alarming exhaustion, and threatenings of cardiac failure, and again the administration of brandy and champagne produced a quick rally. Concentrated food was frequently taken, as well as two grains of quinine every two or three hours. He mended towards evening, and the temperature fell from 103 to 100 degrees.

On the 13th, although there was less fever, there was much cerebral disturbance; and as exhausting diarrhoea continued, small quantities of Dover's powders and tannin, mixed with arrowroot, were injected into the bowel, but were almost immediately rejected. Under these circumstances, two grains of Dover's powders were given by the mouth. Towards night, the delirium, which had been more or less present throughout the day, became uninterrupted, and was associated with other evidence of great exhaustion; there was frequent cough, with expulsion of small plugs of white tenacious mucus.

About 3 A. M., an attempt was made to quiet the restlessness and delirium, and so procure sleep, which the Dover's powders had failed to do, by giving a small dose of chloral; this was attended with success, and sleep ensued; but, after two hours' sleep, which was carefully watched, the breathing was observed to become embarrassed, and the patient had to be roused rapidly and stimulants administered; expectoration was freely induced, and, after a little time, he seemed much better, and for some hours complete mental calm was restored. Towards the afternoon 14th, however, the delirium returned, attended with great prostration; the evacuations were passed involuntarily; the respirations were very frequent, and could be scarcely counted; the temperature again rose to 103.6 degrees; for the first time in his delirium, he could not be roused to take food, but clenched his jaws, and refused all nourishment.

As he lay, however, with his mouth a little open, a mixture of brandy and milk, and brandy and beef tea could be dropped from a sponge between the lower lip and the teeth, whence it trickled into



the mouth, from time to time exciting cough, and thus clearing the air passages of tenacious mucus. In this way he was fed throughout the night, four wine glasses full of brandy and milk, or brandy and beef tea being thus administered drop by drop. Food could not be given by the bowel, as it was immediately voided. While this treatment was being pursued, he fell into a profound sleep, which lasted many hours, efforts at coughing being frequently and unconsciously induced, in order to keep the air passages free. From this, apparently, critical sleep, he woke much better. His mind was quite clear, he took food readily, his respirations fell to 40, temperature to 99 degrees, pulse 120, and the tongue began to clean. Breath sounds, accompanied with crepitant *râles*, returned over the upper two-thirds of the left lung, and the dulness over the upper part of the lung rapidly diminished. Thus, during the next five or six days, he continued to mend steadily, and encouraged a strong and well founded hope of complete recovery. Arrangements were made for his removal to London on the 22d, and thence, after a few days, to the South coast. The temperature, however, did not go steadily down to normal, but continued to oscillate between 99 and 102 deg., and it was evident that the left lung was still the seat of a certain amount of catarrhal pneumonia: and, as the lung cleared somewhat, paroxysms of true whooping cough returned occasionally. But still his condition on the 20th, as compared with what it had been that day week, was one of convalescence.

On the afternoon of the 21st, some alarm was occasioned by the temperature rising to 104 deg., with some complaint of tenderness in the hypochondrium: but, as the diarrhoea had given place to constipation for the last twenty four hours, a mild aperient was given; some whitish stools came away, like curd of milk, and the temperature fell rapidly to normal.

The following day (22d) he was removed, with great care, to London, and bore the journey, thirty-two miles by rail, very well.

The 23d he was cheerful, sat up in bed, and wrote letters; did not cough much. Morning temperature 102.8 deg.; evening 101.2 deg.; pulse, 120; respirations, 52. Loose crepitating *râles* were heard over the upper two-thirds on the left side.

On the 24th he was somewhat better, but did not appear to be making much progress. Morning temperature 102 deg.; evening, 101; pulse, 122; respirations, 48. The condition of the lung was unchanged, that is to say, the physical signs of a moderate amount of pleuritic effusion and of catarrhal pneumonia continued.

On the 25th there appeared to be decided improvement; there was less fever; morning temperature being 100.6 deg., the evening, 100; pulse, 112; respiration, 40. There was resonance on percussion on the left side, air appeared to enter the left lung much more freely. He was quite cheerful, appeared stronger, and was himself desirous to go to the seaside, and we contemplated moving him to Folkstone on the 29th.

He slept tranquilly through the night, woke at 7 A. M. (16th), said he felt better and took an interest in being read to. I saw him at 11



A. M., and was immediately struck with his altered appearance for the worse; the breathing was very rapid, 60 per minute; the countenance pale, dusky, pinched; lips, livid; tongue, dry; skin, hot and pungent; pulse, 140, (hard, small and wiry); abdomen, swollen and tender; bowels, very irritable, frequent mucus, frothy evacuations; the urine passed was obviously discolored from the presence of blood, and became solid on boiling; subsequent microscopical examination showed it to contain numerous blood-corpuscles and broken down blood-casts. The temperature was 103.6 deg. and rose steadily within the next two hours to 105 deg.

After a few hours, he began to vomit the characteristic green vomit of peritonitis. From this period, to the end of the case, I had the advantage of the co-operation of Sir William Jenner; the case was also carefully watched by my friend Dr. J. H. Philpot; and, when we had subsequently to deal with the intestinal obstruction which supervened, Sir James Paget also gave us the benefit of his aid. On the morning, then, of the 26th, just as the chest-symptoms appeared to be yielding, and something like a state of convalescence seemed to be established, we were suddenly confronted with acute peritonitis, and an acute congestion of the kidneys.

It is needless to linger over the details of the next few days, save to say that the diarrhoea ceased somewhat suddenly on the evening of the 27th, the bowels having acted thirteen times in the twelve hours preceding; and on the 28th, when an attempt was made, on account of the constant vomiting, to administer some food by the bowel, an obstruction was found to exist about five or six inches from the anus. No injecting tube could be got beyond this obstruction, nor could any fluid be forced beyond it. A little, perfectly odorless white glairy mucus was occasionally expelled from the rectum; and on the 31st, a small piece of solid matter, like inspissated green paint, escaped from the rectum, and the following day, the injecting tube came away covered with semi-solid tenacious dark-green substance; but, notwithstanding the most patient perseverance in attempts to overcome the obstruction by injecting emollient and solvent enemas, it remained complete. The vomiting was incessant; and the vomited matters, at first green, thick, and scanty, became more fluid, abundant, and of a decidedly faecal character.

On the morning of August 1st, another phenomenon manifested itself, viz.: a rapid and painful enlargement of the left parotid gland. The little patient gradually sank from exhaustion on the evening of August 2d.

The following day we were permitted to make a post-mortem examination. We found a considerable amount of purulent exudation in the left pleural cavity, and quite at the base some readily detachable masses of altered lymph, in the form of a caseo-purulent semi-solid material, of which we removed two or three handfuls. The lung itself was the seat of catarrhal (lobular) pneumonia scattered through a considerable part of its substance. The peritoneum presented the usual appearance, following intense inflammation. The intestines, distended by gas and containing a certain amount of faecal

matter were matted together throughout nearly their whole extent by inflammatory exudation; and here and there, covering the intestines and between the coils, were purulent masses of altered lymph. There was no invagination of the intestine, or any constriction by fibrous bands of any kind throughout its course; but, at the termination of the sigmoid flexure of the colon, the large intestine was bent at a sharp angle, suddenly stretched, as it were, over the brim of the pelvis. At this point the bowel appeared slightly constricted. Above this bend there was a conical plug of dense tenacious material, like inspissated dark green paint. It was at this point that the injecting tube was arrested. The kidneys and the other viscera were healthy. There was no trace of tubercle in the lungs, in the intestines, or in the peritoneum; nor was there any noticeable enlargement of the bronchial glands.

REMARKS.—This case presents many features of interest. It is, fortunately, exceedingly rare to find peritonitis excited in this way. Acute peritonitis is an exceedingly rare affection, except as a consequence of injury, traumatic, or in association with tuberculosis. Infective peritonitis is, however, not uncommonly met with in connection with the puerperal state; but as a possible sequence of purulent pleuritis, I do not think any of the text books in this country have hitherto called attention to it. When I was engaged in translating the article on Diseases of the Pleura in Ziemssen's Cyclopaedia of Medicine, I first became aware of the occasional occurrence of peritonitis as a consequence of the passage of infective material from the pleural cavity along the lymphatics of the diaphragm to the peritoneum. At page 622, of the fourth volume of Ziemssen's Cyclopaedia, the following passage occurs: "Pus sometimes makes a passage through the diaphragm. This either happens in a *diffuse* or *acute* manner, and sets up an acute and an invariably rapidly fatal peritonitis, altogether analogous to the purulent, usually double-sided pleuritis, which also result from the extension of the purulent inflammation through the lymphatics of the diaphragm in purulent puerperal peritonitis," etc.

Another very interesting point in this case was the simultaneous occurrence of an acute and I think we are forced to say an *infective*, congestion of the kidneys; and it is most noteworthy that the kidneys, being excretory organs, were enabled to act themselves free from the devastating influences of the infective material; for, notwithstanding the co-existence of an acute fatal peritonitis, the kidneys in a very short time, *viz.* three or four days, completely recovered themselves, and the urine became quite free from albumen.

Another point, which I can only now just suggest for consideration, is whether the co-existence of the infective malady—whooping cough—conferred an infective property on the purulent pleuritic exudation. Pus formed in the pleural cavity is by no means, of itself, a necessarily infective fluid; but pus formed under certain infective constitutional conditions may acquire special infective properties.

The intestinal obstruction, favored by the inflammatory paralysis of the intestinal walls, was rendered complete by the arrest or the accu-



mulation of the tenacions plug I have described at the termination of the sigmoid flexure of the colon.

Finally, this case affords a sad, yet instructive example of the extreme gravity of the complications of whooping cough, and the necessity of at all times watching very carefully the course of this malady.  
—*British Medical Journal*.

## NEWS ITEMS AND NOTES.

**Our Profession.**—We select these encouraging words from the "Address to Students," *Lancet*, September 14, 1878:—"Dr. Johnson, who had a very high idea of the varied learning and science necessarily connected with the character of an accomplished physician, often affirmed that the physicians of this island 'did more good to mankind without a prospect of reward than any other profession of men whatever.' Pope has said, 'They are in general the most amiable companions, and the best friends, as well as the most learned men I know.' It is the duty of each and all of us to preserve and transmit unsullied this lofty character, and in the words of old Guy of Chanliac, to be 'kind to patients, gracious toward colleagues, modest in giving an opinion, chaste, sober, pitiful and merciful, and not greedy of gain.'"—*The American Practitioner*.

**Qualifications for the Practice of Medicine.**—In the twelfth century, the requirements necessary for the practice of medicine were more rigid than in almost any century to-day, as the following excerpt from the "Address to Students," in the *Lancet*, shows:—"No student in medicine could practice in the kingdom of Naples, until he had been examined by the medical college of Salerno. If his attainments were judged satisfactory, he had the title of 'master' (*magister*) conferred upon him, and this title the royal authorities confirmed when he exhibited his diploma. Before being admitted to examination, the candidate had to prove that he was a legitimate child, was twenty-one years of age, and had devoted seven years to the art. He was also publicly examined in the writings of Galen, Avicenna and Hippocrates, and sometimes in those of Aristotle. A still later law decreed that, preparatory to the study of medicine, three years at least should be given to the study of logic, and after that five years were to be devoted to medicine and surgery."—*The American Practitioner*.

**Intestinal Hemorrhage.**—An ounce or two of oil of turpentine in half or one pint of tepid menstruum arrests, like a charm, intestinal hemorrhage—even when patients seem moribund.—Dr. Hutton.

**Dr. Rai Rara Narain Bass Bahadoor**, Calcutta, has performed lateral lithotomy 248 times, and only 17, or 1 in 14½, died. Cheselden lost 20 cases out of 213; Liston, 16 out of 115; and Guersant, 9 out of 60.—*Kings Co. Proc.*

**Septicaemic Eruptions.**—In 1868, M. Verneuil proved the existence of several different cutaneous eruptions as taking place during pur-



ulent infection. About the same time, Dr. Braidwood was giving special attention to the study of one of those peculiar forms of pyæmic eruptions which bear a close resemblance to the erythema observed in scarlatina. M. Guériot has tried to prove, in accordance with the well-known fact that women who have been recently delivered are often subject to cutaneous eruptions, that scarlatina-form erythema had been observed, the so-called puerperal scarlatinoide. In addition to the above-mentioned two classes of eruptions, M. Claudien Aulnas adds a third, which has also been observed in the course of purulent internal diseases. He suggests that as they, all three, might be traced to the same pathological cause, it would be advisable to class them under the head of septicaemic eruptions. M. Aulnas divides all the cases of eruptions caused by septicaemia which have come under his notice into three groups :

I.—Those caused by surgical septicaemia.

II.—Those caused by puerperal septicaemia.

III.—Those caused by Septicaemia arising from some internal disease.

Cases arising from III are very rare. M. Aulnas quotes only three as having come under his own experience ; the first resulting from pyæmia ; the second caused by suppurative hepatitis, and the third occurring in a patient who suffered from purulent pleurisy. In all these cases, as well as the eruptions proceeding from surgical pyæmia, as was observed by M. Verneuil, death occurred a short time after the first symptom of the eruption had been noticed.—

**Special Inflammation of Tendons in Lead Poisoning.**—M. Gubner in the *Gazette Médicale*, pointed out at a meeting of the French Association for the Advancement of Science, an unusual variety of deformity and lesion of tendons, which he had observed for the first time in a patient suffering from lead poisoning. This lesion consists of a sort of plastic and fungoid synovitis, seated in the sheath of the extensors on the dorsal surface of the hand. He thought it was rather to be associated with nutrition disorder caused by lead paralysis, than with action of the poison itself. The second case which he had noticed in a patient suffering from cerebral paralysis of saturnine origin, confirmed him in this idea. It was, however, difficult not to be reminded of the disease described by Garrod under the name of saturnine gout, and the necropsy which he had occasion to perform led Mr Gubner to satisfy himself that there was neither tophic nor ure products, but that the case was one of special tendinous lesion. Legros, who examined the patient, recognized necrosis of the primitive tendon sheathed in a tendinous tissue of new formation. There was here an analogy with the invaginated sequestrum in case of central necrosis. M. Gubner has seen this deformity after paralysis *à frigore* in a coachman who had suffered from the effects of cold rain falling on his hands. From these various facts, M. Gubner thought it might be concluded that the disorder was one of nutrition, due to paralysis, from whatever cause arising. M. Verneuil believed rather in the action of the poison than in nutrition disorder, due to paraly-

sis. He laid stress on the fact that similar disorders occurred in syphilis without prior paralysis.

**Sarcoma of the Scapula in an Infant, Followed by Multiple Sarcomata.**—Mr. Morgan narrated the story of an infant, four weeks old, who was brought to him at the Great Ormond Street Hospital with a lump over the acromion process of the left scapula. The tumor was hard, of the size of a nut, and the skin was easily movable over it. Three days later, the lump was larger, and another had appeared rather lower down. Three days afterwards, several small tubercles had appeared under the skin of the back, chest and abdomen. There was no cough. The belly increased in size, but the rest of the body rapidly wasted. The child died five weeks after it was first seen, having passed no water for twenty-four hours.

*Post Mortem.*—A large, hard tumor was found on the upper part of the left scapula. It grew beneath the periosteum. On section, it was firm. There was no degenerative process. Three large and several small deposits were found in the heart. The large deposits were of the size of filberts, and, on section, yellow softening was found in their centers. They presented the appearance of the encephaloid deposit in the liver. At the back of the abdomen was a large mass, measuring five inches long, by three wide; this was found to be the right kidney. It consisted of masses of soft new growth. The exterior of the organ was smooth. The left kidney presented much the same appearances on a smaller scale; the external surface of this kidney was lobulated and irregular. There were many patches of disease in the left suprarenal capsule, and some scattered patches in the liver. Under the microscope, the new growth was found to consist of round, elongated, and a few spindle-shaped cells with large nuclei. There was no alveolar structure, and no myeloid cells. The irregularity in the shape of the cells appeared to point to their having grown under pressure. Mr. Morgan stated that he had been unable to find a record of the occurrence of sarcoma at so early an age. He thought it possible, however, that some cases which had been reported as cancer in babies, were, in reality, sarcoma.—*Br. Med. Jour.*

**Cancrum Oris, by Francis Mason, M.D.**—A boy aged 8 years, from St. Thomas's Hospital, with closure of the jaws from scarlet fever, followed by cancrum oris, was exhibited. There were now firm adhesions between the right cheek and the upper and lower jaws, so that the boy could only separate the margin of the incisor teeth to the extent of about a line. In feeding, he pushed all through this narrow interval and completed mastication with his tongue. Mr. Mason thought that the best course to pursue, was to remove a piece of the lower jaw, according to the method proposed by Esmarch; but he brought the case under the notice of the society, as he was anxious to elicit the opinion of the Fellows. He would like to ask what was considered the best apparatus for preventing the contraction of the cicatrix, supposing that it be removed with or without a portion of each jaw; and what was the best method of keeping the ends of the divided bone apart, in case Esmarch's or Rizzoli's operation was adopted.—*Br. Med. Jour.*

**Thyrotomy for the Removal of Membrane Obliterating the Larynx**, by Felix Semon, M.D.—This case was the third ever mentioned, in which the operation was performed for the removal of a membrane completely obliterating the larynx. The membrane was formed after an attempted suicide. There was secondary union of the false vocal cords and ankylosis of one arytenoid cartilage. The operation, although unsuccessful, had many interesting points, amongst which were the following:

I. The practical corroboration of the treatment of Professor Störck, of Vienna, that the posterior wall of the larynx, and especially the interarytenoid fold, are apt to produce cough when touched, while the anterior and lateral walls of the larynx are not so irritable.

II. The discovery that an excess of even equal pressure on the inner walls of the trachea may produce an intense asthmatic attack.

III. The possibility of determining approximately the thickness of a transverse membrane *completely* occluding the larynx by laryngoscopic examination.

IV. The necessity for making in such cases a second examination from the tracheal opening, tracheotomy having been performed before, in order to see whether one has to deal with several membranes.

V. The construction of a modified tampon-canula.

VI. The caution to be used in administering chloroform through a tampon-canula.

VII. The use of artificial light while operating in the cavity of the larynx — *Br. Med. Jour.*



# THE HOSPITAL GAZETTE

AND

## ARCHIVES OF CLINICAL SURGERY.

A WEEKLY JOURNAL OF MEDICINE, SURGERY AND THE COLLATERAL SCIENCES.

EDITED BY

EDWARD J. BERMINGHAM, A.M., M.D., and FREDERICK A. LYONS, A.M., M.D.

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### LECTURES.

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## A CLINICAL LECTURE ON FRACTURE OF THE LOWER JAW.

Delivered at Bellevue Hospital, New York, November 6th, 1878.

BY

FRANK H. HAMILTON, M.D. L.L.D.,  
Surgeon to the Hospital, etc.

Gentlemen :—We have before us to-day three cases of fracture of the lower jaw, which will serve as the text for a few practical remarks. The first case, Sarah M——, aged 23, was kicked in the left side of her jaw on the 15th of October, breaking the jaw on the same side, nearly opposite the anterior mental foramen. She was seen soon after the injury was received, by a physician in this city, who applied a four-tailed bandage, and this bandage, with no other dressing, she has worn ever since—now about three weeks. Examining the jaw, we find that the line of fracture was oblique, and that the anterior fragment is depressed about  $\frac{1}{8}$ th of an inch, and immovable, indicating that the fracture has united ; at least it is sufficiently firm that it cannot be moved by the moderate force which I now employ. This amount of displacement is too inconsiderable to render it necessary or proper to employ greater force to overcome it. It does not prevent the teeth from approaching each other with sufficiently accurate coaptation, for the purposes of mastication.

CASE II.—Thomas G——, aet. 30, admitted November 4th, 1878, having been injured on the evening of the 2d. He was unable to explain how the accident happened, as he was intoxicated at the time. The lower jaw was found to be broken. The line of fracture commencing in front, between the first and second bicusps, and extending obliquely backwards and inwards. The anterior fragment was depressed two lines. My own apparatus was applied at first, including the inter-dental gutta percha splint, but it was removed on the following day, on account of an abscess which developed at the seat of fracture. (From the hospital records the reporter learns that the

abscess was opened on the 6th of November, and was found to communicate with the seat of fracture. Poultices were applied, and no apparatus could be employed to support the fragments, but a four-tailed bandage. The consequence was that although the fragments were found to be united firmly, on the 26th of November, (being the 24th after the receipt of the injury) the anterior remained depressed two lines, the same as at the time when the patient first came under observation. In other words, the four-tail had served no purpose whatever, in restoring the fragments to place. The patient however, suffers no inconvenience, from this imperfect coaptation of the fragments, inasmuch as the teeth are all gone from the left side of the upper jaw, permitting the anterior teeth to come accurately into contact as before the injury.

CASE III.—James S—, aet. 64, admitted Oct. 4th, 1878. On the day of admission, this man fell from a mast to the deck of a ship. He remained unconscious for some time, and is now unable to say how he struck. The lower jaw was found to be broken, on the left side near the anterior mental foramen. The line of fracture being nearly the same as in the preceding case, and the anterior fragment was depressed to about the same extent. As the patient was much bruised about the body, he was placed in bed. On the 7th day after the receipt of the injury, a plaster-of-Paris bandage was applied by Dr. Heckheimer, my chief of staff, in such a manner as to embody essentially the principles involved in the construction of my own apparatus, and this is the dressing which he is now wearing. You will observe that it lifts the anterior fragment by a perpendicular action, or an action nearly at right angles with the base of the jaw. The contrivance is ingenious, practical and as efficient as my own, only that it lacks the convenience of being easily removed and re-adjusted.

From the records we learn that this apparatus had to be removed, to open an abscess which had formed under the jaw. After which, a similar apparatus was applied and a fenestra made to allow the matter to discharge, and the dressings to be applied. On the 14th of November, the abscess had nearly closed, and the fragments were nearly, but not firmly united. It is not stated whether any depression of the anterior fragment still remained. He was discharged on this day at his own request, and there are no further notes of the case.)

These three cases may be regarded as in most respects typical examples, since they illustrate the character of the fracture as it occurs in a large majority of cases. In each the fracture has occurred at or near the anterior mental foramen, on one side of the jaw only. In each the line of fracture is more or less oblique, and its direction is from before backwards and inwards. In each the anterior fragment presents no apparent overlapping of the posterior fragment but it is slightly depressed, the greatest depression being  $\frac{1}{4}$  of an inch, and this depression of the anterior fragment in the two more recent cases is overcome by the application of a slight pressure under the chin. The only indication of treatment, therefore, in either case, is to slightly elevate the anterior fragment, and to secure



immobility while union is being consummated, which usually occurs speedily in the case of the lower jaw, when there are no complications. It may be a source of gratification to you to know that among the large number of prosecutions for malpractice which have come under my notice for the supposed maltreatment of fractures, no one has been prosecuted for the treatment of a fractured jaw. This happy result has been attained, not so much in consequence of the ease with which the two indications of treatment to which I have referred as present in these cases and in most other cases of fracture of the lower jaw; that is to say, it is not, perhaps, because the anterior fragment is so easily lifted into its place, and so easily maintained in place, or that a perfect result is always reached, as it is because the fragments are originally so little displaced that very little deformity would ensue under almost any treatment, or perhaps if not treated at all. So that in the end the patient finds that the slight irregularity of the line of the jaw and of the teeth remaining, does not interfere with mastication or with any other function of the jaw, and leaves no apparent disfigurement externally. In some of the cases which have come under my notice no displacement whatever has existed, although the line of fracture was complete, and I have ventured to treat them, and have done so successfully, without any apparel whatever. In the case of the girl first presented to you the anterior fragment remains depressed about the eighth of an inch, but you will observe that in closing the jaw the teeth are permitted to come in contact wherever there are opposing teeth. The apparatus employed in this case is, as I have said, the four-tailed bandage, the dressing employed and recommended by Sir Astley Cooper for these fractures, and was employed by most surgeons of his day, both in England and in this country; and with which this great surgeon and his contemporaries seem to have been satisfied, and yet it is easy to demonstrate that the apparel is utterly useless as a means of lifting or retaining the fragment in place. Indeed, you have only to look at the dressing as it is now applied to this patient to verify what I say of its inutility. The line of action of the portion of the bandage which passes under the chin is too oblique to have any power to elevate the fragment, and the line of action of that portion of the bandage which crosses the front of the chin is such as to depress the anterior fragment and if it were possible, it would cause an overlapping of the fragments—and it would be possible if one of the teeth were gone at the seat of fracture, as happens to be the case frequently. The fact that this apparel was employed by Sir Astley Cooper, and held its position so long, furnishes the evidence that slight displacements in the line of the jaw do not usually occasion serious inconvenience.

We are not satisfied, however, at this day, with the apparatus of Sir Astley, or with any other apparatus in this or other fractures which does not give us the most complete and perfect possible results, whether the patient is likely to complain of our practice and mulct us in damages, or not; and the ingenuity of surgeons has been taxed to a great extent to devise means by which the two simple indications now under consideration may be attained. I shall not occupy your



time by describing these various contrivances, but only present to you the apparatus which I have myself designed, and now for many years employed for this purpose. The problems were two; first to maintain quietude in the posterior fragment while the mouth was sufficiently open to receive food. I ought to say that it is not always necessary that the mouth should remain open that the patient may receive food, since in some cases the absence of one or more teeth in front enables the patient to take fluids through a tube.) Secondly, to lift the anterior fragment vertically. The first of these I have accomplished by a gutta-percha inter-dental splint placed between the posterior fragment and upper jaw. The second I have accomplished by carrying the strap which passes under the chin almost vertically to the top of the forehead, in which position it is maintained by a band crossing the forehead, over the ear, and under the occiput; and a counter-strap passing from the vertical strap on the center of the forehead back along the median line to the strap under the occiput. This apparel has been delineated and described in all the editions of my *Treatise on Fractures and Dislocations* and in my *General Treatise upon Surgery*. I have used it many years, and it has been in use by others in this hospital and elsewhere sufficiently to test practically its value. You will observe that in this apparel, as now shown to you, there is no part of the apparatus which acts upon the front of the chin, to draw the anterior fragment downwards and backwards, and this is a defect which pertains to nearly all of the other forms of head dressing which I have seen. A year or two since Dr. Vanderpoel, one of the house surgeons of this hospital, applied a bandage of plaster-of-Paris rollers, the effect of which was practically the same as the effect of my own apparatus; and Dr. Hochheimer, my present house surgeon, has modified and, as I think, improved upon the plaster-of-Paris dressing. One of the cases before you has been dressed by Dr. Hochheimer, and illustrates his method. My chief objection to either of these plaster dressings is their immobility and the necessity of destroying them and removing them entire, whenever, in the course of the treatment it may be necessary to open the mouth more completely and examine the condition of parts which may have suffered injury or may have developed inflammation. Nevertheless I may say that in a certain number of cases you will find probably, this apparatus very convenient and useful.

With regard to the inter-dental splint I wish to say that it may be removed, washed, and replaced whenever in your judgment, cleanliness requires; only exercising care in removing and replacing it that you do not disturb the fracture. The most agreeable wash for the mouth for the purposes of cleanliness I have found to be a few drops of tincture of myrrh in a wine-glassful of water.

Finally, gentlemen, do not suppose that in the few remarks that I have now made I have considered all the varieties or complications of fractures of the lower jaw which you are liable to meet with, for a consideration of these and of the various procedures and forms of mechanical appliance which they may demand, I must refer you to the treatises upon surgery, where they have been stated in full.

## HOSPITAL RECORDS.

## BELLEVUE HOSPITAL, NEW YORK.

Reported by E. HOCHHEIMER, M.D., House Surgeon.

## COMPOUND COMMINUTED FRACTURE OF TIBEA AND FIBULA—AMPUTATION OF THIGH—SECONDARY HEMORRHAGE—RECOVERY.

J. R. B., Age 65, admitted October 24th.

About an hour before admission, patient was knocked down and run over by a light wagon. He bled quite profusely at the time, and to restrain the hemorrhage, a handkerchief was tied tightly around the leg below the knee.

On admission he was considerably exhausted, but otherwise in good condition. A little below the middle of the right leg was a small wound, bleeding rather freely, and leading down to the tibia, which, as well as the fibula, was found fractured. The leg was much swollen, and ecchymosed and enphysematous. The hemorrhage was restrained by ligatures and compression: the wound dressed according to Lister's method, and the leg placed in a fracture box.

During the following six days the leg became discolored more and more, and finally, undoubtedly gangrenous. The temperature averaged  $103^{\circ}\text{F.}$ , and amputation held out the only chance of saving the patient's life. The operation was accordingly performed on the 30th of October by Dr. Erskine Mason; the thigh being amputated at the junction of the middle and lower thirds, a posterior cut being made posteriorly and a short oval flap anteriorly. The edges were brought together with difficulty by carbolized silk sutures, a drainage tube inserted, and the whole dressed, as the operation had been performed, "according to Lister."

The posterior flap was suspicious looking at the time of the operation and, within three days thereafter, was unmistakably gangrenous, but only superficially. All went apparently well until the seventh day, when somewhat profuse hemorrhage set in, which the tourniquet only partially restrained. The flaps were torn open, and the hemorrhage controlled by the application of a number of ligatures. It was found impossible, on account of the sloughing, to bring the edges together and the end of the stump was left open to granulate from the bottom. This it has steadily done, the process of cicatrization being assisted by grafting, which was performed on the 25th of November: so that now, Dec. 12th, only an ulcer about the size of a dollar remains, and the patient's recovery is only a question of time.

Since the amputation the average temperature has been 100. Lister's dressings are still employed, the only deviation therefrom being that, after the secondary hemorrhage, straps of ordinary adhesive plaster were employed to support the flaps, but did not seem to interfere with the aseptic character of the discharge.

## HYPERÆMIA OF THE LIVER—CIRCUMSCRIBED PERITONITIS.

Otto B., age 37, was admitted Oct., 21st. He had suffered more or less from malaria, and twenty years ago, was taken violently ill with severe pain in the region of the liver, relieved by wet cups. On



the 19th of Oct., an hour after having eaten some indigestible food, he was seized with severe pain, beginning at the ensiform cartilage, and soon extending over the right side of the abdomen. The bowels were constipated, and the pain continuing, he came to the hospital.

Examination showed enlargement of the liver, with great tenderness over the right side of the abdomen; no jaundice,  $\frac{1}{2}$  grain of morph. sulph. was administered every two hours, and leeches applied over the seat of pain. After the leeches had fallen off the punctures continued to bleed so, that it was necessary to apply compression. The pain rapidly diminished. Oct., 23d, the patient had an attack of epistaxis of considerable severity, which weakened him, but seemed to give still further relief to the pain and tenderness. On the 26th of October, the bowels moved, and soon all pain and discomfort disappeared, and Nov., 1st, the patient was discharged cured.

### PERISCOPE.

EXCESSIVE SECRETION FROM THE NOSE; BY JULIUS ALTHAUS, M.D.

The case of watery fluid dripping from the nostril, read by Sir James Paget, at the last meeting of the Clinical Society, reminds me of a case of disease of the fifth cranial nerve, which was some years ago under my care, and which is published in the *Medico-Chirurgical Transactions* for 1869. In that case, there was, in addition to many other symptoms, consequent upon the withdrawal of the nervous force from the sphere of the tri-facial, an incessant flow from both nostrils, which, on running down to the lips, made the skin very sore, and caused the moustache to fall out. In consequence of the incessant maceration, which went on, the middle portion of the upper lip appeared quite white, like a scar from burning, or from application of sulphuric acid.

The same excessive secretion took place in the mouth, and the patient was, therefore, obliged to keep a pocket-handkerchief almost constantly applied to his nose and lips, in order to catch the stream of liquid. A handkerchief would become saturated with liquid in a short time. The lips appeared covered with a froth, such as we see in a patient who has just come out of an epileptic attack. Both corners of the mouth were very sore, being macerated by the constant flow. This liquid was slightly alkaline.

If we read Sir James Paget's case by the light of the one just alluded to, in which the cause of the flow was manifest, the pathology of it seems to be so obscure as it was pronounced to be by our eminent *conferre*. The nasal mucous membrane receives its nervous supply chiefly from the ophthalmic branch of the tri-facial nerve, and from the sphenopalatine ganglion, the secretion from the mucous membrane being *excited* by the sympathetic, and regulated and *inhibited* by the fifth nerve. Remove the inhibitory influence of the tri-facial, so as to allow the sympathetic fibres to rule supreme, and you get hypersecretion of liquid, as was plainly seen in my case, where it occurred not only in the nose, but in the mouth and eyes.



Sir James Paget's case will therefore turn out, probably, to be one of injury or inflammation of the nasal twig of the ophthalmic branch of the fifth nerve. Perhaps the "headache" from which his patient suffered shortly before the flow commenced, was a symptom of neuritis of that twig. My view of the pathology of this would be quite established; if there should be anæsthesia of the mucous membrane of the nose, or of some portion of it, on the side corresponding to the flow. In my case of anæsthesia of the fifth nerve, the excessive secretion of liquid was eventually checked by the use of the constant voltaic current, under the influence of which the function of the tri-facial nerve was to a great extent restored. When the patient was discharged, the lips were no longer covered habitually with froth, but appeared quite dry.—*Br. Med. Jour.*

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NASO-PHARYNGEAL POLYPUS REMOVED BY DEPRESSION OF BOTH  
UPPER JAWS.

Prof. Tiffany in the *Transactions of the Medical and Chirurgical Faculty of the State of Maryland*, '78, relates a successful case of this novel operation.

C. S., a mulatto, entered the hospital with a polypus growing from the base of the skull, occluding the right nostril. The growth was removed by a wire passed around the base, but returned again in four months. It filled the naso-pharyngeal space, and was attached to the internal plate of the right pterygoid process, its internal and posterior aspect, and to the adjacent basilar process. As the tumor was large, it was decided to depress the two upper maxillary bones, and to perform a provisional tracheotomy. While the patient was being etherized, when the stage of muscular relaxation came on, the tumor sank down, closing the opening of the trachea. Raising the tumor caused it to bleed, and, asphyxia being imminent, the patient was stood upon his head, while the trachea was rapidly opened, liberating an ounce or so of blood. A tube was then inserted, and further interference postponed for the time. Six days later the operation was resumed. To prevent the entrance of blood, into the air-passages, a bit of sponge with a piece of silk attached to it was passed into the opening of the larynx. "An incision was carried down either side of the nose, at the juncture of the nose and cheek, then around the ala, and through the middle line of the upper lip into the mouth. The cheeks were then freely dissected from the upper jaws as high as the nasal bones, infra-orbital foramina, and malar bones. The nose was separated from the upper jaws, and turned up towards the forehead. A fine saw was then made to cut each jaw from the malar process into the middle meatus of the nose, passing just beneath the infra-orbital foramen upwards and inwards. The posterior wall of the upper jaw, when in contact with the pterygoid process, was not divided, lest the superior palatine artery should be injured. The septum of the nose and the vomer were cut with strong scissors. Both upper jaws were strongly depressed and sank down, hinging upon the pterygoid processes." The tumor was w

exposed, and the pedicle divided by Paquelin's cautery, and the root of the pterygoid process together with the basilar process thoroughly scraped with the hot curved knife of the same instrument. Bleeding points were touched with the same cautery, and chloride of zinc in crystals was thoroughly applied to the bone from which the tumor grew. The jaws were replaced and held in position by a loop of wire passed through the cheeks near the outer angles of the orbits and joined above the forehead by a rubber band. A celluloid plate was then adapted to the teeth of the upper jaws and grooved, so as to hold the wires securely. The cheek flaps were then united to each other, and to the nose by sutures. Finally, the sponge was withdrawn from the larynx. The tumor was between three and four inches long, pear-shaped, and six inches in circumference one-half inch from its lower end. The incisions were made as a Cheever's operation, which was fatal after one hundred and twenty hours. Dr. T. calls attention to the advisability of tracheotomy in these cases, and the use of a sponge instead of Trendelenberg's apparatus, which is clumsy and has no advantage over the former.—*The Doctor*.

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#### HYDATIDS OF THE LIVER; PARACENTESIS FOLLOWED BY FREE INCISION.

A single woman, nineteen years of age, rather thin and delicate in appearance, stated that she had previously been treated for hydatids of the liver. At the age of fourteen, a lump gradually formed beneath the right ribs; there was also some pain in this region aggravated by deep inspiration; six months later, the tumor was twice tapped in St. George's hospital, and she was relieved. At a later date, she was attacked with facial erysipelas; and two years ago, the hydatid was tapped for the third time. On examination, the liver was found to be enlarged, and a rounded tumor extended downward from it to below the umbilicus, and bulged the right hypochondrium; this was hard and firm, and was believed to be the cyst previously treated. Projecting into the left hypochondrium was another tumor, which had an elastic feel and had been growing rapidly. The liver and the tumor moved slightly on inspiration, and fell a little to the left when the patient turned on that side. She complained of some pain in the right hypochondriac region. After a few days rest in bed, an exploratory puncture was made with the aspirator needle, a little clear fluid was drawn off, containing chlorides but no albumen; its reaction was neutral, and microscopical examination gave negative results. No constitutional disturbance followed, but she complained of much pain. Three days later, the aspirator needle was again used at the same spot, but only a drop or two of pus or blood were withdrawn, which on microscopical examination, showed granular matter, oil globules, blood and pus corpuscles; in the evening she vomited. The tumor increased in size, with some pain, and she became thirsty and feverish; poultices were applied to the abdomen, and hypodermic injections of morphia were given. A week later, a needle was again introduced, and the point was found to move freely in a large cavity; an



ounce of sanious fluid was withdrawn, when a cyst became impacted in the needle. Mr. Page now made an incision over the tumor through the abdominal walls down to the transversalis fascia; the wound was then plugged with carbolic lint. Two days later, the cyst had contracted adhesions to the abdominal walls, and did not move on respiration; the wound was then enlarged, and the knife was plunged into the hydatid cavity. A good many cysts, mostly of the size of small grapes, but a few larger, were let out; many also seemed to be left in the cyst. A drainage tube was inserted, and the wound was dressed with carbolized gauze; the operation was conducted antiseptically. The wound has since been always dressed antiseptically, and syringed out well with carbolic lotion. Two large gelatinous parent cysts and enormous numbers of daughter cysts, varying in size from a walnut to a pea, were removed. In some of the cyst walls were numerous reddish crystals of rhomboidal shape; there were also numerous crystals of cholesterine. There has been no suppuration, but large quantities of bile have escaped from the wound and still flow away. The patient is doing well. Dr. Broadbent remarked that in his experience the contained secondary cysts had always been either extremely numerous or very few in number, and that, in the later case, a simple tapping had almost always been effectual, while in the former, the attempt to evacuate the contents of the cyst, being frustrated by blocking of the canula, had usually set up inflammation, and rendered a free incision necessary.—*Br. Med. Journal.*

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#### EXTIRPATION OF THE RECTUM.

The difficulty in the treatment pertains to the establishment of efficient drainage of the wound, combined with oft-repeated antiseptic injections, or even permanent irrigation with an antiseptic solution. In relation to the operation itself, malignant growth of the rectum may be classed as follows:—

I. The circumscribed tumor, easily removed by excising a segment of the rectal mucous membrane.

II. The diffuse infiltration of the rectum, including the mucous membrane of the anus.

III. The diffuse infiltration beginning about the sphincter of the anus.

In cases of the first class, the field of operation being exposed by forcible digital dilation, or by the introduction of Sim's speculum, the tumor is caught and drawn down towards the anus and excised. The next step of the operation consists in introducing a long narrow bistoury on the afflicted side near the margin of the anus, and pushing it upwards underneath the mucous membrane until its point is perceptible in the wound occupying the former seat of the tumor. Through the channel, thus made, a drainage tube is passed, after which the lips of the wound in the rectum are accurately united by sutures. If union by first intention ensues, the cavity without the rectum, can be easily cleansed, with antiseptic injections through the drainage



tube. Malignant diseases of the rectum which begin at the anus, necessitate the extirpation of the entire viscus. Before dividing the tube between the healthy and diseased portion, silk sutures should be drawn through the former in order that it may subsequently be united to the healthy skin. After this operation, also, a number of drainage tubes are inserted along the rectum, the entire length of the wound. If the peritoneal cavity was first opened during the first act of the operation, the wound in it is closed, after thorough disinfection, with cat-gut sutures. In cases where the disease diffusely infiltrates the rectal mucous membrane above the sphincter, the affected portion is removed, after having been anteriorly and posteriorly divided in the median line; the upper portion being then drawn down is united by sutures with the mucous membrane, lining the sphincter, drainage having been provided for as in the previous cases. The advantages of the operation are greatest, when the lower portion of the gut is sacrificed, because in relapses, there is no such painful impediments to defecation as invariably supervenes when the sphincter of the anus is divided. *R. Volkman, S. Klin. Vortrage.*

### NEWS ITEMS AND NOTES.

**Secretion of Urine.**—Quinke finds, contrary to a natural supposition, that while there is a diminished secretion of urine during sleep, the reverse takes place immediately after waking, and, that for some time afterwards more urine is secreted than during any other similar period of the twenty-four hours. Quinke is unable to furnish a reason for this peculiar phenomenon. Is it not closely related to the period of taking liquid, the amount taken, and the effect of exercise in dressing after the repose of the night?

**Apiol,** the active principle of parsley, discovered by Taret and Homelle in 1855, is an oleaginous amber-colored liquid, soluble in water in any proportion, of an acrid taste. It may be given in capsules. According to Marotte, of La Pitie, it brings on the menses, regulates menstruation, and calms the pains by which it is often accompanied. It has no action on the pregnant womb.

**Discovering Spermatozoa.**—Ronviere (*La France Medicale*) gives the following:—In summer cover the urine, in a bottle, with a layer of benzine, to prevent decomposition. In winter this is not required. Let it remain at rest for twelve hours. Decant the greater part, leaving the muddy bottom part. Mix with this about its volume of sulphuric ether in a test tube, shake violently. In a few moments the ether rises to the top of the liquid, carrying the spermatozoa with it, and can be drawn off with a pipette for examination.

**Ulceration of the Cornea.**—Williams (*Gaz. Hebdomadaire*) prefers eserine, or chlorohydrate of pilocarpine in ulceration of the cornea, to atropine, its tendency to relieve photophobia. He also uses it in mydriasis and diplotheritic paralysis of accommodation. He looks on the action of the two drugs as nearly similar.

**Educational.**—Professor Wurtz was charged some time since by the French Minister of Public Instruction to make an inquiry into the organization of the laboratories and practical instruction given in the several universities of Germany and Austro-Hungary. He accordingly made several journeys to the great seats of learning in these two countries, and the *Journal Officiel* publishes at full length his report. Prof. Wurtz insists strongly on the danger of creating large establishments, where students are taught something of everything, and on the necessity of creating special foci for every large section of experimental science. He shows the advantages of special institutes, and insists upon the organization of chemical, physical, physiological, anatomical and pathological institutions such as flourish on the other side of the Rhine and may be established in Alsace-Lorraine. He ends his report by describing the Munich Institute.

**Mental Diseases in the Lower Classes.**—Dr. Tung (*Allgemeine Zeitschrift für Psychatrie*) is of the opinion that, of late years, paralysis, combined with mental disturbances, has been on the increase among women of the lower class. He explains this fact by the increasing misery and the decreasing power of resistance which predominate among the people. The disease generally manifests itself at the time of the cessation of the menses, especially between the thirty-fifth and forty-fifth years, which is later than in men. Paralytic women are either childless, or they have one child, or the children are either still-born or die at an early period. The paralysis generally follows close upon an attack of melancholy.

**Alcohol.**—The *Contemporary Review* continues to record the opinions of well known medical men on the side of moderation in the use of alcohol, and against the excessive and overstraining abuse of physiological and medical common places, in which some few teetotal orators indulge on the stump. Last month's number includes articles on the Advantages and Disadvantages of Alcohol by Sir Wm. Gull, Bart; Utility of Alcohol in Health and Disease, by Dr. C. Murchison; Alcohol and Individuality, or Why did he become a Drunkard? by Dr. Moxon; Action and Uses of Alcoholic Drinks, by Dr. S. Wilks.

**"Infant Assurance."**—In a recent report of Dr. Settle, Medical Officer of Health for Barrow in Furness, he attributes many of the deaths of infants in his district to culpable neglect, even criminal starvation, and adds: "Burial societies, I am afraid, have something to answer for in respect to infant mortality; for, if a child be in several friendly societies, dissolute parents can see a way to gratify their love for drink, and a premium is offered for a child's death."

**"Intemperance and Hospital Casualties."**—The Registrar of Mercer's Hospital—in which perhaps the largest number of accident cases occurring in Dublin are treated—has informed the Executive Committee of the Irish Association for the Prevention of Intemperance, that 2,858 accident cases were admitted to the hospital during the past year, but treated as externe patients. This is an average of nearly 8 daily. The average of Saturday's was 14, and the Sunday average,



9 cases. Since the closing of the public houses at 7 o'clock, the number of cases on that particular night has diminished.

Dr. Lombe Atthill, Master of the Rotunda Lying-in Hospital has been elected an honorary member of the Gynæcological Society of Boston.

Dr. Luigi Ciniselli, for many years chief surgeon of the hospital at Cremona, died last month, at the age of 75. His name is familiar to surgeons on account of his able advocacy of the electrolytic treatment of aneurism, a subject to which he devoted much attention, and regarding which he made a number of important contributions to medical literature. His publications on the subject extend over more than 30 years. He was also the author of several other papers bearing on surgical practice.

**Vaccination.**—Dr. Huillet, of Pondicherry, extensively and determinedly, undertakes to show that vaccination was known to a certain Dahnwantori, by name, who flourished several thousand years before Hippocrates.

**The Balm of Gilead.**—Dr. DeHass gives the following particulars as to this far-famed specific for all diseases.

The name, Gilead, was sometimes applied to all trans-Jordanic Palestine; properly, however, it included only the country east of the Jordan from the head of the Dead Sea to the foot of Lake Genesareth, of which Mizpeh Gilead is the crowning point. It was here, along the Jordan, and about Jericho, the balsam or balm once so highly prized was procured from an aromatic tree, supposed still to be found in this region, and known as *Spina Christi*, or tree from which the Savior's crown of thorns was woven. This most precious gum was obtained by making an incision in the bark of the tree. It also oozed from the leaves, sometimes hung in drops like honey from the branches. The tree, which originally was found in Palestine, was transplanted in Egypt by Cleopatra, to whom the groves near Jericho, were presented by Mark Antony. The shrub was afterwards taken to Arabia, and grown in the neighborhood of Mecca, whence the balsam is now exported to Europe and America, not as balm from Gilead, but balsam from Mecca. The gardens around Heliopolis and the "Fountain of the Sun" in Egypt, no longer produce this rare plant, and it has long since ceased to be an article of export from Gilead.

**"Cholera."**—Dr. Simmons, Sanitary Inspector for the Japanese Government for the port of Yokohama, reports, under date of Oct. 10th, that he regards the occasional reported cases of cholera in Japan during the past summer as cholera morbus, and not malignant cholera, and in 8 days there had been 58 cases and 10 deaths. Cholera has existed in Shanghai, China, for several months; and, as Nagasaki is the first port of Japan entered by vessels from Shanghai. Dr. Simmons regards the outbreak as a new importation; but owing to the lateness of the season and the sanitary measures instituted by the government, he does not anticipate a spread of the disease.



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# THE HOSPITAL GAZETTE

AND

## ARCHIVES OF CLINICAL SURGERY.

A WEEKLY JOURNAL OF MEDICINE, SURGERY, AND THE COLLATERAL  
SCIENCES,

EDITED BY

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### LECTURES.

## TWO CLINICAL LECTURES ON SOME RARE FORMS OF SPINAL DISEASE.

I.

### ACUTE SPINAL PARALYSIS—RHEUMATIC SPINAL PARALYSIS.

Delivered at the Pennsylvania Hospital.

BY

J. M. DAcOSTA, M.D.

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(Reported For THE HOSPITAL GAZETTE.)

CASE I.—Wm. H. H., a farmer, with a good family history. Has always been strong and well until eleven months ago when he spent a day at very hard work and during the night was exposed to cold and wet. On the following day he went to work as usual. Now let me stop just here for one moment and try to impress upon you the first beginnings of the case—we have a farmer, a strong and healthy man, who has spent a day hard at work slaughtering cattle, and who, after much fatigue, exposes himself greatly. On the night following that of exposure the patient suffered from severe pains in his back and limbs. These pains extended all the way down his legs. There was, however, no twitching of the muscles. The man could not sleep and was obliged to spend the night in walking the floor.

The next morning, *i. e.*, on the morning of the third day, he started to go to see the doctor but was obliged to turn back and go home. During the course of the third night he lost the power of using his lower extremities, and his bladder became paralyzed, so that his urine had to be drawn with a catheter for the following fifteen days. (Since then there has been no difficulty with the bladder.) There was no paralysis, at that time, of the rectal muscles.

For two or three months after the period to which I have just



referred the patient was most markedly affected with acute spinal paralysis, had shooting pains in his legs and was at first much troubled with nocturnal delirium in spells lasting half an hour at a time.

During the past eight months the pains in the man's legs have disappeared entirely. There has been no nausea and vomiting to speak of at any time during the progress of the disease. They have not, at any rate, been prominent symptoms of the case.

After the man came into the hospital we examined the case most carefully and found marked paraplegia without involvement of the rectum or bladder. He could adduct and abduct his thigh to a limited extent. The big toe of the right foot could be moved slightly, but there was no motion in the toes of the left foot. The gluteal muscles were atrophied as were also those of the thighs and legs. The reflex excitability was preserved. Sensation was not lessened. The feet were swollen, cold, and mottled, owing to the irregularity of the capillary circulation. The sensibility of the skin of the limbs was but slightly, if at all affected. The man could distinguish two pin points on both of his legs when they were but one-half an inch apart.

In testing the case with electricity we found that the strong Faradic current elicited no response whatever in either leg except from the flexor of one of the big toes. As far as faradization was concerned the stricken muscles seemed to have lost altogether their electro-muscular contractibility. With the continued current we obtained about the same results.

The electro-muscular sensibility was at any rate fully preserved; it may have been increased. The patient was put upon regular treatment and under the persevering use of ergot, of iodide of potassium, strychnia and electricity, has improved wonderfully.

CASE II.—R. G., aged 35, married, a shoemaker by trade, is still very healthy looking and states that he has nearly always been healthy until January last when he had a decided attack of rheumatism in his legs. The joints were red and very much swollen. This rheumatic attack lasted about three weeks. Pains in the back and legs were associated with the rheumatism. He had a similar attack a year previous.

On February 13th, 1878, he was admitted to the hospital and still walked with difficulty and pain, but the local tenderness and discoloration had gone.

While in the hospital he complained greatly of pains in the limbs and back and of loss of power in the lower extremities. It was difficult at the time to know whether or not these symptoms were due to the rheumatism in the extremities. I came to the conclusion that they were not. It is stated in the history that there was some twitching and that the electro-muscular contractility was impaired. Even at that early date I had some suspicion of the existence of spinal disease. However, the man improved very rapidly under the use of iodide of potassium and ergot and was discharged as entirely well. Ten days after his discharge he returned to the hospital. Questioning him closely we elicited the fact that after leaving the

wards considering himself, and indeed feeling perfectly well, he had walked a great deal about the city in search of employment—had, in fact, been walking for the larger part of five whole days.

After his return to the wards he began to lose power in his legs steadily. By this time the loss of power, which was but slight at first has become very marked. The pains in his back and legs returned and he spoke of a feeling of great constriction around his waist. In the second attack there were twitchings of the muscles of the legs; and, indeed the character of the palsy in this attack was far more pronounced than in the first seizure. His treatment during the relapse was essentially the same as at first, viz.: by ergot and iodide of potassium. The Faradic current was then for the first time employed, but seemed only to increase the pain without diminishing the paralysis.

In August, 1878, the legs began to atrophy and still the loss of power remained. The electro-muscular contractility was very much diminished, while the sensibility seemed to be slightly deficient in both of the lower limbs. The patient states positively that there was no tingling or numbness felt in the limbs before the second attack. The capillary circulation also, in this as in Case I, is much affected, the blood circulating very irregularly in the superficial tissues. Reflex sensibility still remained intact, or nearly so. The muscular sensibility has gradually increased.

I have had the patient brought before you to-day in order to apply the various electric tests of muscular power in your presence and so show you how much loss of power and how much muscular atrophy there has been. My assistant is using a battery of thirty cells and will first apply the continuous current.

The sartorius on the left side moves, but very sluggishly. On the right side no movement can be obtained from this muscle. The rectus femoris of both legs is entirely dead to the action of the current. On the right side the sartorius only quivers. The tibialis anticus quivers on both sides. The patient feels all these applications quite keenly so that the muscular sensibility is not at all impaired.

Now let us try the Faradic current. Employing it with rapid interruptions we obtain the same results as with the continuous current. With slow interruptions and a strong and full current the muscles reply quite markedly. Reflex motion is present on both sides, for when I tickle the soles of his feet he draws his legs away. The so-called "tendon reflex" was a short time ago present, but is not to-day, for when I strike the legs under the patellæ there is no movement of this tendon.

Here, then, are two cases of unusual interest awaiting your diagnosis. What was the cause of the paralysis of the lower limbs in both cases? Why are the muscles of the lower extremities so much atrophied in both instances? What were the causes of the attacks, were they the same in both cases, and if not, how do the cases differ? These and numerous other questions of equal interest present themselves for your solution to-day.

CASE I is an instance of acute spinal paralysis, or poliomyelitis.



It is, moreover, a very typical case, for, in the first place the subject of the attack was a healthy man, a farmer, of all classes of men the healthiest. This man after a day spent in violent exercise, butchering cattle, and when greatly fatigued, exposes himself to cold and damp and as a result loses suddenly and completely all power in his legs. Furthermore he has attacks of what he styles "flightiness" at night, delirium with hallucinations. He becomes at once, in fact, acutely ill. Sensation is not impaired, but all electro-muscular contractility is lost and the muscles of the lower extremities undergo rapid atrophy. This is a typical case of acute spinal paralysis—a rare form of disease in the adult—known, when occurring in children, as essential paralysis.

The lesion of this form of myelitis is found to be in the anterior horns of the spinal cord. This location of the lesion accounts for the entire loss of electro-muscular contractility while sensation is so little impaired, if at all. The fact also accounts for the absence of the persistent rectal and vesical difficulties and of bed-sores. All these facts taken together make the clinical history of the case most marked.

This disease, as I have just told you, is known as essential infantile palsy when it occurs in children. The lesions are precisely the same in children as in adults. In children, not only the muscles, but also the joints are found to change. This alteration of the joints is not by any means so prominent a symptom in adults.

You will, no doubt, consider it a very strange statement when I say to you that the majority of cases of this disease recover. By this I mean that the prognosis of acute spinal paralysis in the adult is quite fair. If a patient does not recover completely and if there is some resulting deformity, he is at least likely to recover sufficiently to be about and to attend to the ordinary occupations of life.

What is the matter with *Case II*; has this man also acute spinal paralysis? Is the wasting here due to the same cause as in *Case I*? This is a very rare clinical history. It belongs in one sense to the class of acute spinal palsies, and in another sense it does not.

Let us go over the case together, briefly, once more. The first attack was plainly one of rheumatism which was localized chiefly, if not altogether, in the lower extremities. It was not limited to one leg but attacked both equally. Even when the man was in the hospital for the first time, I thought the disease to be rheumatic affection of the spinal cord and its membranes. There was, with the pain, some slight difficulty in locomotion and some twitching of the muscles—signs of congestion of the cord, or of spinal meningitis. Then the man got better and left the hospital. Very rashly, though very naturally, for the poor fellow was in great want of employment, he walked about a great deal, up and down the city and brought on his old trouble, or rather developed a new one decidedly and was stricken down, powerless. He was now completely paralyzed in both of his lower limbs. But in his case there were no head symptoms—no fever and vomiting as in *Case I*, and no "flightiness." The palsy became more and more complete until *Case II* resembled *Case I* precisely. But *Case II* is not one of pure spinal paralysis. There were



distinct rheumatic complications and therefore I believe it to be one of rheumatic paralysis of the cord, rheumatic spinal myelitis.

Anatomically speaking the lesions of the two cases are the same, both being located in the anterior horns. But you all see at once how different the two cases were in their beginnings. In *Case I* there was no rheumatism and the spinal paralysis came on at once. In *Case II* the rheumatic origin was plain and the spinal complications came on at a later period in the course of the disease. The cases converge because the same part of the cord is affected in both. The treatment of *Case II* has been by gr. xv pot. iod. thrice daily with a little iron and locally friction and lately electricity. I will now put the man on f  $\frac{3}{4}$  ss of cod-liver oil thrice daily instead of the iron.

---

## CLINICAL LECTURE ON IDIOPATHIC RECURRENT ERY-SIPELAS; AND ON EXUDATIVE ERYTHEMA.

Delivered at the New York Hospital.

BY

L. DUNCAN BULKLEY, M.D.

[Reported for THE HOSPITAL GAZETTE.]

---

GENTLEMEN:—The case of the young woman now before you is a very interesting one, and as you will probably not have the opportunity of seeing another like it during our whole course, I will dwell rather particularly on it. It is one of idiopathic, recurring erysipelas, so-called. I doubt the propriety of calling this affection erysipelas at all, (so different is it from the ordinary form of that disease;) but until we have arrived at a more definite knowledge of the true character of erysipelas it may perhaps do as well to retain the name, because the lesion, as seen, is practically that of erysipelas.

This patient is twenty years of age, and she has been subject to this eruption for more than seven years past. In answer to my inquiries, she informs me that she is more liable to attacks of it during the Spring and Autumn than in either the Summer or Winter months. During the three months of the Spring, as well as of the Autumn, she sometimes has two, and sometimes three attacks. There is no exciting cause for them, as far as she knows, unless it may perhaps be cold. The seat of the trouble is always the nose and a portion of the rest of the face; and it unvariably commences on the left side. In the great majority of attacks it is confined exclusively to that side of the face, but in occasional instances the eruption spreads to the right side also; though always to a very limited extent.

The present attack commenced about four days ago, and she states that it is an unusually light one. It was not, nor are the attacks wont to be ushered in by any chill, and the first thing that she noticed was a burning sensation about the left side of the face, which was followed by pain in the head and ear. In former attacks she has sometimes been confined to bed, for as much as two weeks, and her eye has been completely closed by it for two or three days at a time. When the disease affects her head, as is occasionally the case, she

notices that the hair falls out afterwards. This has occurred only three or four times, however.

On making a careful inspection of the condition now present, we find that the left side of the face is very considerably swollen, and that the left ear is about double the size of the right one. By this time the color has to a great extent faded from the surface; but the latter is, as you observe, still tense, red, and shiny. It will soon begin to scale now, as the patient invariably notices scaling of all the affected region at the termination of the attack; which, as we have seen, varies very greatly in intensity at different times.

This peculiar disease is not properly described in any of the books. Though called erysipelas, it requires but a moment's reflection to determine that it presents some features very different from the erysipelas which results from wounds and operations, and sometimes occurs as an epidemic in hospitals. In the latter the surface is always very red, shiny, and much swollen, and there is much more pain in it, also more fever and constitutional disturbance than in such cases as the present, of which I have seen a number of instances. Although it is rare to find any amount of blisters in erysipelas, in the older plates, (one of which I show you here, it was always described and represented as characterized by blisters or blebs, and the older writers were accustomed to class the affection among the *bullæ*. But after all, the affection from which our present patient suffers is, perhaps, the truest kind of erysipelas, because it is undoubtedly a real lymphangitis. There are always redness and swelling in this case; but never any bullæ. As I have very generally found to be the case in patients with this recurrent affection, we find in this young woman a skin very doughy in appearance, and a large thick nose; while upon the face are a large number of comedones, *acne punctata*, as well as a certain amount of *acne simplex*.

Now in regard to the pathology of the disease: The only author with whom I am acquainted who discusses this is Neumann, and he regards it as due to purulent infection, and that most probably arising from nasal catarrh. In *phthiriasis capitis* and in some other affections of the scalp the lymphatic glands of the back of the neck become enlarged an account of their absorption of sero-purulent matter and these glands in other portions of the body seem to have for one of their functions to arrest such elements, as in the case of bubo, etc. There are, however, no glands which stand in the same relation to the face and perform a similar service in regard to any trouble affecting the nasal cavity, and lymphatic absorption of pus from nasal catarrh or ulcerations can readily give rise to such a lymphangitis as this, which then spreads very rapidly over a large surface. The fact that the disease is confined to one-half of the face goes to prove that it really is a lymphangitis; because, although there is a certain amount of anastomosis between them, there are entirely different sets of lymphatic vessels upon the opposite sides of the face; infective erysipelas, as you know, generally affects the face symmetrically.

Finally, is there anything that we can do to prevent attacks of the disease from recurring in the future? for this is what the patient



comes to us to find out, and not simply to have the present condition treated, since that is now already subsiding. I believe that there is; but in order that we should accomplish such a desirable result it is necessary that we should step outside the domain proper of the specialist in dermatology. From my past experience with this affection, I have every reason to suspect that the cause of all the trouble here is in the nose, or rather its lining membrane, and not in the skin itself. It becomes, therefore, an essential point to treat the nasal catarrh, if we desire to cure the patient. If this is removed, I am convinced that any return of this pseudo-erysipelas can be prevented; because I have succeeded in thus arresting it in a number of other similar instances. In the first place, I find that the bowels are constipated here, which coincides with the general rule that there is almost invariably functional disease of the liver in connection with catarrh. In such a case as this, therefore, I should begin the treatment with a purge containing blue-mass or other mercurial, and follow it with the continuous use of aloes and iron in appropriate doses. As the bowels got into a better and better condition, I would gradually diminish the amount of the cathartic; other remedies, as nitric acid internally, etc., would come in for their share in removing the cause. If by the time the bowels had become perfectly regular, the urine free from oxalate of lime or urates, and the digestive apparatus in perfect order, the post-pharyngeal catarrh had not disappeared, it would be necessary to resort to the use of certain local measures to the nose, especially in the form of sprays or powders; but this is not the place to speak of such local treatment particularly. What I want to impress upon you is simply that you must be sure to see that the existing catarrh is cured before you can expect to see the return of such attacks as this prevented. As to the local treatment during the attack, that should be of the very simplest character. A little powdered starch is all that is ordinarily required; and, as a rule, I seldom make use of any washes.

Most of you are familiar with the treatment which I am in the habit of employing in erysipelas proper; but in case any are not acquainted with it I will allude to it briefly. The first thing that I do is to order a brisk purge of blue-mass or calomel. More frequently perhaps by the compound cathartic pills. Four or five free evacuations of the bowels should be secured, and the cathartic action kept up for about two days. After the purge or rather while it is acting I at once commence on the tincture of the chloride of iron, which is given in doses of twenty, thirty, or forty drops every two or three hours. In scores of cases at the Demilt Dispensary and elsewhere, I have seen the disease arrested promptly within a very few days, the patients almost invariably returning to the clinic in two or three days greatly improved.

Last week in the didactic portion of my lecture, I devoted some time to the consideration of erythema *simplex*, and I now want to ask your attention for a little while to the subject of exudative or inflammatory erythema. This, as you see on the chart before you, has been divided for convenience sake into two classes, *erythema (exudativum)*



*multiforme*, and *erythema (exudativum) nodosum*; other subdivisions have been made by some authors, as, *erythema papulatum*, *tuberculatum*, *gyratum*, etc., but they are only varieties of *erythema multiforme*, and may all conveniently be classed under this head. *Erythema simplex* is merely a hyperæmic condition; but *erythema exudativum* is an acute inflammatory disease of the skin, which is characterized by erythematous blotches in different parts of the body, more commonly on the wrists, and hands and feet, more or less elevated above the surface, and generally transient in duration. When, as occasionally happens, the congestion goes on to the development of large papules, (*erythema papulatum*, it is not of quite such an evanescent character, and may continue for several days or a week. The descriptive term *multiforme*, given to it by Hebra, is a very appropriate one, because one of the characteristics of the affection is the variety of forms which it assumes. One of the most striking of these is the gyrate, in which the blotches come out in more or less perfect rings (*erythema circinatum*), or form irregular gyrations, as in this plate from the Sydenham Society's Atlas, and I have from time to time seen some very good examples of this at the Demilt Dispensary.

The second variety of exudative erythema, as we have seen, is called *erythema nodosum*. It is characterized, as the name implies, by prominent red elevations of the skin, of some size, especially on the extensor aspects of the forearms and legs, and the peculiar feature of these is that they never suppurate or assume any other form whatever than that in which they originally make their appearance. By a retrograde process they merely fade gradually away, and so disappear. The multiform erythema is liable to be confounded with the exanthemata; but as it is not accompanied with chill or fever, and seldom with much malaise, we need not make a mistake in discriminating between them if proper care is observed. The differential diagnosis of the affection in the main lies between it and the exanthemata and eczema; rarely could it be confounded with any of the lesions of syphilis.

It is a fact to be remembered, however, that in the severer forms of erythema the disease may go on to vesiculation, as is represented in the model which I now exhibit to you: the affection does *not* then cease to be erythema and become herpes, or other disease, it is still an erythema whose inflammatory congestion has overstepped the usual bounds. But, you may ask, why call an affection like this erythema? Because, I answer, it is still an erythema, although the trouble is apparently more serious than this. It is merely an aggravated form of the same process obscured in the lighter varieties, and like them, it passes away rapidly. Erythema properly belongs more to general medicine than the special sphere of dermatology, because it is invariably connected with some derangement of the internal organs. This lesion is sometimes caused by the ingestion of certain substances used as medicines. In the model which I now show you, the erythema sometimes produced by the administration of *copaiba* is very beautifully exhibited, and that caused by quinine has been abundantly discussed in the journals of late. You will almost

always find in cases of erythema that there are furred tongue, malaise, constipated bowels, or some abnormal condition of the urine. Under such circumstances, the so-called specifics for skin disease, such as arsenic, etc., are of no use; and in the treatment we must proceed on the general principles which common sense would dictate.

It is usually well to commence with some cathartic medicine, and I know of nothing more efficient or more generally applicable in such cases than the sulphate of magnesia mixture of Startin, of London, who was a very faithful worker in diseases of the skin, but wrote very little upon the subject. The formula is as follows :

Magnesia Sulphat,	$\frac{3}{4}$ ss. <i>a</i> $\frac{3}{4}$ j.
Ferri Sulphat,	$\frac{3}{4}$ ss <i>a</i> $\frac{3}{4}$ j.
Acid, Sulphuric, dil.,	f $\frac{3}{4}$ ij <i>a</i> f $\frac{3}{4}$ iij.
Infus. Gentian,	q. s. f. $\frac{3}{4}$ iv.

M

Dose, teaspoonful after eating, well diluted.

In regard to the local treatment of erythema the main thing is not to do too much ; since the lesion is apt to be irritated and aggravated, rather than benefitted, by the measures adopted for its relief unless great caution is observed. The following wash, however, is as useful as any application that I know of :

Calaminæ preparata,	3 j.
Zinci Oxidi,	3 j.
Glycerinæ,	f. 3 ij a f. 3 ss.
Aquæ Rosæ,	
(Or. Aq. Aurant. flor.)	q. s. f. 3 iv.

M. Very good results can be obtained in most cases from the use of a simple powder, such as rice-powder; to which a little morphia may be added if there is much pain.

Erythema nodosum is a much more serious variety of the disease than the ordinary forms which we meet with. It is apt to be accompanied with a very considerable amount of pain, and the patient should always remain in bed until the attack is over. There is, however, as I have before remarked, no danger of the process going on to suppuration. The best local application is the ordinary lead and opium wash ; and a mild carbolio acid lotion will also sometimes be of service.

## HOSPITAL RECORDS

BELLEVUE HOSPITAL, NEW YORK.

Reported by E. HOGKHEIMER, M.D., House Surgeon.

TRAUMATIC ARTHRITIS—DISLOCATION OF KNEE—EXSECTION OF KNEE-JOINT.

Alexander S., age 36, admitted Sept. 18, 1878.

About six months before admission, the patient accidentally inflicted an apparently trifling incised wound in lower part of right thigh.



This healed in a few days, but shortly afterward the thigh became red and swollen, and the doctor who was called made an incision on the inner side, from which a beer-colored fluid escaped, and another on the outer side, which gave vent to nothing but blood. Although these openings afforded relief at the time, they refused to close, and have continued ever since to discharge a thick matter, containing from time to time, small pieces of bone. The right knee became more and more stiff and enlarged, and for about three months before admission had been in its present condition.

On admission, the two openings above mentioned were noticed as well as two others on the anterior surface of the leg, both discharging thick pus. The leg was slightly flexed, and the knee-joint incapable of no active and of but very little passive motion. The head of the tibia was dislocated backward, forming a prominence in the popliteal space, and there was a corresponding protuberance anteriorly, caused by the projection of the lower end of the femur.

The patient was kept in bed for a week with hot lead and opium wash applied to the knee, for the purpose of allaying local irritation and inflammation, and on the 25th of September, Dr. Erskine Mason excised the knee-joint. The patella was taken out and the lower end of the femur sawed off, a slice about  $\frac{3}{8}$  of an inch thick being removed and a similar piece about  $\frac{3}{16}$  of an inch thick removed from the upper end of the tibia. This was imperatively necessary, as the ligaments and synovial membrane were found extensively diseased and the lower end of the femur and the upper end of the tibia carious. Some small remaining carious patches on the cut surface of the tibia being scooped out, the two raw surfaces of bone were brought into exact opposition, and so maintained by silvered copper wires passed through holes drilled obliquely in the two bones. A horse-hair drain was inserted and the edges of the flaps brought together by carbolized silk sutures. The entire operation and the subsequent dressings were conducted according to Lister's method.

After the operation the wound was dressed every third or fourth day. The patient remained entirely comfortable; his temperature rose only on three occasions as high as  $100\frac{1}{4}^{\circ}$  F., and averaged 99. The superficial wound healed at the end of a week, at which time the sutures were removed. On the fifteenth day the horse-hair drain was taken out and at the end of six weeks the wires were removed and the union was found perfect and solid; at the same time the immovable apparatus, which had been applied since the operation, was removed and the patient's limb encased in a plaster of Paris splint, and he himself allowed to go about with crutches. A week later this splint was removed, also, and now [Dec. 10th] he walks about with a cane and a crutch, bearing a considerable part of his weight on the right limb, and showing no sign of injury or disease in it except a small sinus on the anterior surface of the tibia which is closing up.



## PERISCOPE.

## CASE OF LAPARO-ELYTROTONY.

(Under the care of Dr. Arthur W. Edis.) As the following is, I believe, the first case of the operation having been performed in London, it may, perhaps, prove of interest to many at the present time.

Mrs. M., aged twenty, primipara, of medium stature, was taken in labor on Friday, Nov. 22nd, 1878, about 6 P. M. When seen by Mr. Edward Fardon, resident obstetric at the Middlesex Hospital, about 11 P. M., she was in strong labor. The pelvis was small, the head was felt with difficulty at the pelvic brim, the membranes being intact. Miss Thompson, as midwife, was left in charge of the case. About 4.30 A. M., on Saturday, Nov. 23d, the membranes ruptured, but the foetal head remained arrested at the pelvic brim.

About 6.30 A. M. Mr. Fardon being again called to her, gave chloroform, and endeavored to apply the long forceps, but could not succeed in getting it to lock.

At 9 A. M. I was sent for. The os was then fairly well dilated, the head presenting at brim in the second position, right occipitocotyloid. The patient had ankylosis of the right hip-joint, the thigh being considerably flexed.

On examination, the pelvis was found to be small and undeveloped, the diameter not exceeding two and a half inches antero-posteriorly. Before resorting to a more serious operation, as the head appeared to be of moderate size, the application of the long forceps was again attempted, but without success. At this time, it was noticed that a huge thrombus was distending the right labium. It was then decided to remove her to the Lying-in-Hospital, with the object of securing proper nursing, and other appliances, which were impossible in a room ten feet square.

At 11 A. M. a consultation with my colleagues, Dr. Heywood Smith and Dr. Fancourt Barnes, was held. Our unanimous opinion was, that delivery per vias naturales, owing to the contracted condition of the pelvis, and the thrombus in the right labium, even after perforation of the foetal head and crushing by the cephalotribe, would be attended by extreme difficulty as well as danger. The question of Cæsarean section or laparo-elytrotomy at once suggested itself; and bearing in mind the danger incidental to the former, and the comparative success of the latter on the continent of America, it was decided to resort to this as giving the patient a better hope of recovery. The foetal heart was plainly audible to the right of, and a little below, the umbilicus, the head was felt resting on the right iliac fossa.

Operation—At 11.30 A. M. chloroform, and subsequently ether, was administered by Mr. Fardon; the patient lying on her back, with her shoulders elevated. The carbolic acid spray was directed on the abdomen during the operation, and every antiseptic precaution observed. The bladder was emptied by means of the catheter. The uterus being drawn upwards and towards the left side, so as to put the skin in the right iliac region on the stretch, a slightly curved incision was made from a point about half an inch above and outside

the spine of the os pubis, parallel to and an inch above Poupart's ligament, to a point an inch above the anterior superior spine of the right ilium. The several structures met with were divided down to the transversalis fascia. This was then opened, Key's hernia director introduced, and the fascia cut, any bleeding vessels were secured by Péan's hæmostatic forceps. The peritoneum was separated from the transversalis and iliac fasciæ, and a staff passed per vaginam to raise the vaginal cul-de-sac as much as possible into the abdominal wound. An incision was then made into the vagina on to the staff, parallel to the iliopectineal line, and the opening enlarged by tearing with the fingers. The os uteri was now drawn up towards the right iliac fossa, the long forceps applied to the presenting head, and the fœtus extracted with very little difficulty. It was a male, living, weighed seven pounds ten ounces, and measured twenty inches in height. The placenta was expressed through the wound; the uterus contracted well. But little hæmorrhage occurred throughout the operation. On examining the wound carefully the bladder was found to be torn somewhat on the right side. A catheter was fastened in and the wound closed by silk sutures; a pad of lint and cotton wool being then applied, and kept in position by a bandage. The patient was much exhausted, but rallied fairly after a short time, every precaution being taken to promote warmth and obviate shock. She regained consciousness, and went on well for about thirty hours; urine passed freely through the catheter. The wound was injected with a weak solution of carbolic acid per vaginam, the water flowing out freely through the abnormal wound, the three inner stitches having been removed after the first few hours. None of the fluid entered the bladder, leading to the conclusion that the edges of the rent were in opposition. The nursing arrangements were most thoroughly carried out by the matron (Miss Freeman) and a staff of trained pupils.

About 8 P. M. on the 24th, she began to be restless and showed symptoms of collapse. Wind was passed freely per anus, the abdomen being soft and flaccid; but no symptoms of peritonitis, or of extravasation of urine, supervened.

The temperature only once rose to 102.2 deg. Fahr. The pulse gradually increased in frequency, and, spite of every effort to the contrary, the patient gradually sank and died exhausted at 4.30 A. M., on the 25th, forty hours from the time of operation.

I had arranged everything for a careful post mortem examination, but the husband and mother (Irish) objected so strongly to it and evinced such fear of its being resorted to, that they insisted on the body being at once removed by an undertaker; consequently, my intentions were frustrated, and I am unable to lay before the profession the exact condition of the strictures after operation.

Remarks.—My impression is, that the peritoneum was uninjured; there were no symptoms of peritonitis. Although the bladder was evidently torn, this accident has happened in three other cases where recovery ensued, and I had no reason to believe that any infiltration of urine took place.

The patient was a flabby, unhealthy subject, with very defective rally-



ing powers. The extremities were inclined to be œdematous, and became almost livid under the influence of chloroform.

Had Cæsarean section, or even cephalotripsy been performed, my belief is that the issue would have been the same. She was emphatically an unsatisfactory subject for operation. The ankylosis of the right hip-joint complicated the operation somewhat, rendering it more difficult than would have otherwise been the case.

The child is living and healthy, and likely to do well. From what I have read of the experience of Dr. Thomas, of New York, as also of Dr. Skene, I believe the operation of laparo-elytrotomy will supersede that of Cæsarean section, and also, in many instances, that of cephalotripsy.

It is unfortunate that the first two cases recorded as having been performed in Europe have ended fatally ; but this should not deter us from studying the details of the operation more carefully, and giving it a fair trial when opportunity occurs.

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#### GANGRENE OF CORPORA CAVERNOSA AND CORPUS SPONGIOSUM OF PENIS FROM THROMBOSIS.

Mr. Gay brought before the Pathological Society, of London, the case of a man, aged thirty-one, a cabinet maker, who began to attend at the Great Northern Hospital on March 1st, 1878, when he was suffering from tonsillitis. This rapidly passed off, but was followed almost immediately by sudden swelling of the ankles and knees, accompanied by pain. This became so severe, that he was admitted into the hospital under Dr. Leared. On the 15th of March, the pain extended to the calves of the legs, and soles of the feet, the skin became dry and hot, and there was some œdema of the left eyelid. On the following day, the œdema had extended to the right eyelid ; the calf of the left leg was swelled, brawned and tender. The superficial veins of the leg were distended, and the skin over the tibia was, for several inches, dusky. Next day, March 17th, the pain and swelling had lessened, but a purpuric eruption had made its appearance on the inner aspect of both elbows. On the 18th, the left leg had nearly recovered its normal aspect, but the patient began to complain of pain in the right groin ; and the penis became gradually swollen, until it was distended to the utmost. The glans became dusky, and the skin, which did not lose its normal color, œdematous. The following day, there was severe pain in the perineum, for which leeches were applied ; some incisions were made in the skin and into the body of the penis. The cuts into the skin bled, but only a little semi-coagulated blood issued from the wound in the body of the organ. It soon became evident, that the entire body of the penis had perished, the skin having everywhere retained its vitality. At the end of six days, a line of demarcation formed, and the gangrenous organ separated, leaving behind it the skin, which was pared down to a convenient size. The man recovered, and was soon afterwards discharged, Mr. Gay believed this to be an unique case. He looked upon it as essentially due to rheumatic phlebitis, metastatic in its form, shifting about from



one part and tissue to another—from the joints to the orbital periosteum, then to the external saphena, and finally, to the internal iliac, and probably its prostatic and pudic tributaries. The external saphena vein, in its course along the muscles of the calf, seemed to favor attacks of phlebitis, and these attacks were often mistaken for muscular rheumatism. The speaker then passed on to explain why it was that the deep structures had sloughed, whilst the skin of the penis had retained its vitality. He stated that this was due to a marked difference in the anatomical distribution of the superficial and of the deep veins, not only in the penis, but elsewhere. He asserted that, if a large superficial vein, the external saphena, for example, were cut, and an attempt made to inject it through its distal end, the injection would reach the deep veins on account of the free anastomosis between these veins; proving that a block in a superficial vein would not give rise to complete obstruction in the parts behind the block. On the other hand, if a deep vein were treated in the same manner, it was found that the injection could not pass off by anastomosing channels; hence, any block in a deep vein would cause complete stoppage of the circulation in the deep veins behind it, and this would lead to gangrene. If, then, a deep vessel, which ordinarily received the blood from both the superficial and the deep parts of an organ became blocked, the deep parts would die, but the superficial parts would recover themselves by the establishing of collateral circulation. Mr. Gay contrasted this form of gangrene with that arising from failure of the cardiac power, from the disease of arteries, or from changes in blood, whether from malaria, zymotic diseases, or other causes. He stated that, in this class of cases, to which Dr. Marchison, Sir Joseph Fayrer, and others have called attention, clots were generally found in other parts and organs besides the dying limb. In these cases, moreover, the integuments, as well as the deep parts are affected. The president remarked that the point of greatest interest to him was the recovery of the patient. He thought the rule laid down by Mr. Gay, that the superficial parts did not partake in the gangrene of the deeper parts, did not hold good in all cases of gangrene of the penis. Mr. Gay replied that he believed the cause of gangrene in fevers was very different from that which produced it in rheumatic phlebitis. In the former, it was due to the blood state, combined with general feebleness of the circulation; in the latter, the disease was in the veins leading from the part.—Sir Joseph Fayrer stated that, in the cases he reported, the gangrene occurred in malarious patients from arterial thrombosis. In Calcutta, this form of gangrene was very common, and was due to the ease with which the clots were formed in the blood of persons suffering from malarial cachexia. It was entirely independent of venous obstruction.—*Br. Med. Jour.*

#### EFFECTS OF THERMIC STIMULANTS ON ANÆSTHESIA

The remarkable effects produced by metallotherapy in cases of hemianæsthesia originating from hysteria are well known to our readers. There have, however, of late, been made new experiments by

Dr. Thermes with thermic stimulants, which have produced the same effect as the metals on different hysterical complications, such as anæsthesia, achromatopsy, and contractions. The following is a brief summary of the results observed on hysterical hemianæsthetic patients. Cold and heat were successively applied. The well known first stages of thermic stimulation. A piece of ice was applied to the left temporal and supra-orbital regions of a patient suffering from hemianæsthesia of the left side and from achromatopsy. After fifty or sixty seconds had elapsed, the left eye began to be able to distinguish colors—first blue, then red, yellow and purple; but the right eye was at the same time affected by amblyopia. The parts that had come into contact with the ice recovered their natural sensibility; but the corresponding parts on the right became anæsthetic. The piece of ice was then brought in contact with the left forearm, which was, as before mentioned, insensible. Two minutes later, not only the place touched by the ice, but also the entire arm up to the shoulder was perfectly normal. At the same time, the muscular strength of the arm suddenly increased from 11, as had been previously tested by the dynamometer, to 23; but the right upper extremity became weak and insensible. Two or three minutes after the removal of the ice, these phenomena had disappeared and everything returned to its normal state. Iced water produced the same effects, only more slowly. A general douche of cold water gave the same results as the ice, only in a more general way, all the troubles disappearing in the left side and being transferred to the right side, which had been the healthy one. Contraction was either entirely removed by the douche or transferred. The results were much more remarkable, if the water were very cold and it were projected with considerable force. The anæsthetic hand recovered its sensibility after having been plunged into water of 40 deg. C. (104 deg. Fahr.) for thirty or sixty seconds; and the same effect was produced gradually on the whole arm up to the shoulder, while the corresponding right side was affected as before. This effect lasted only two minutes after the hand had been taken out of the water; but if the immersion continued, the hand became insensible as before. A sponge imbibed with water of 40 deg. Cent. and applied to the face gave exactly the same results as the ice did. If the temperature of the water were near 50 deg. C., the effects were much more marked. Contraction did not resist heat, and often disappeared for several hours altogether. A douche of hot water (33 to 40 deg. C. = 91.4 to 104 deg. Fahr.) called forth the same phenomena as did the cold water. The hysterical symptoms left the side that had been previously affected and attacked the side that had been well. If the douche were continued, anæsthesia took place again in its previous place.



## NEWS ITEMS AND NOTES.

**Poisoning by Disinfectants.**—This sort of accident continues to be lamentably frequent. On Friday, Nov. 1st, an inquest was held by Mr. C. Aspinall, the Liverpool borough coroner, on the body of Christopher Viggar, aged 8 years, an inmate of Everton Terrace Industrial School. On the previous Thursday, the boy was directed to remove some empty bottles from a closet in the kitchen to the store-room, a small quantity of carbolic acid remained in one of the bottles, and he was seen to drink it, and shortly afterwards was taken ill. A doctor was immediately sent for, and everything done for him, but he died the following morning. The jury rendered a verdict of "accidental death."

**The Plague at Bagdad.**—M. Spiridion Laritzianos, who had the opportunity of studying the plague at Bagdad while the disease was at its height, has addressed a very interesting essay on the subject to the Academy of Medicine, Paris. He describes the symptoms as follows. The disease manifests itself suddenly by a severe chill, followed by a state of prostration, during which the temperature rises to 104 deg. Fahr. with headache, thirst, constipation, and a quickened pulse. In the second stage of the illness, the buboes appear; they often reach the size of a hen's egg, and at the same time the temperature rises to 105.8 and 107.6 deg. Suppuration seems to be a favorable symptom. No remedies have as yet proved efficient; and the only way in which the epidemic has been, if not limited, at least mitigated, was prophylactic treatment by adhering strictly to the rules of hygiene. The patients were kept apart from the rest of the population; the houses carefully disinfected; persons who had not yet been attacked by the disease were obliged to wash themselves frequently with lime water and observe the greatest cleanliness in their clothing. The author explains the occurrence of this disease by the inundations caused annually by the rivers, Euphrates and Tigris. The soil remains covered with little pools of water that poison the atmosphere by their emanations; and on this damp surface, men, women, children, horses, asses, buffaloes, etc., sleep under tents and in huts covered with rushes. These wretched creatures live almost entirely on barley, rice, dates, and decayed fishes.

**Osteomalacia.**—Mr. Banks described a remarkably interesting case of osteomalacia, occurring in a woman aged 34. Her illness dated from the birth of her fourth child, eighteen months ago, began with a slight attack of paraplegia, which left her sufficient power in her legs to shuffle about *with* help. She next had a pain in the right thigh which took away her power of standing; and on examination, it was found to be broken. The thigh was put up on a Liston's splint, but did not unite properly; and, while she lay in bed, other bones broke simultaneously, until nearly all the long bones in her body were fractured. The chest fell in, and dyspnoea was urgent. This improved after a time, but exhaustion increased, and she died. The femur and humerus were shown; they were fractured in several



places, were very characteristic of osteomalacia. Their recent appearance was perfectly depicted in an oil painting by Dr. Glynn. Several sections were exhibited, which had been cut, with decalcification. They showed great enlargement of the Haversian and medullary spaces, which, running together, had consumed the greater part of the compact tissue of the cortex of the bone. The marrow was infiltrated with round nucleated cells, and was permeated everywhere with dilated thin walled vessels, congested with blood; the main feature being decalcification, commencing about the Haversian canals, and gradually extending into the bone.—*Br. Med. Jour.*

**Medico-Legal Studies of Hair.**—M. Jeannot, in a monograph on Human Hair (reviewed in the *Revue Mensuelle de Médecine et de Chirurgie* for Nov. 10th), points out in the first part of his work the difference which exists between hair in a healthy or diseased condition of the body, and on a corpse. He gives certain peculiarities by which we may be enabled to distinguish between human and animal hair, and finally shows what varieties are found in hair itself, in reference to the place where it grows and the age and sex of the person. The second part of this pamphlet tends to prove how very important the knowledge of all the above mentioned facts may be in any case of supposed murder. Now in this manner hair found either on the instrument with which the crime has been committed or on the clothes of the victim may help to identify the murderer. The author then shows by what means it is possible to prove whether hair has been pulled out by violence, cut off, or whether it fell off spontaneously. Another interesting point is the assertion maintained by Hoppe-Seyler & Sonnerischein, that arsenic might exist and be traced in the hair of persons who have died from the effects of this poison. The truth of this theory, however, has not yet been proved; and all the experiments performed by Stadel on patients who were under treatment with arsenic have always given a negative result.

**Blood-Letting.**—In the *Lancet* of November 2d, is an interesting clinical lecture on this subject by Prof. Wharton Jones, who thinks that it is time to consider whether by the prevailing abstinence from venesection, inflammation of important organs are not often allowed to run a prolonged and disastrous course, which might be prevented by the timely abstraction of blood in such quantity that the loss of it could not be injurious to the patient. Dr. Jones is not alone in his opinion, which he ably supports by reference to his own specialty. But, beyond the domain of ophthalmic surgery, similar favorable results could be obtained, and the last few years have every now and then witnessed competent observers lending their voices to the advocacy of a return to the practice of occasional moderate blood letting. The indications so familiar to our youth, are laid down by Dr. Jones in terms that vividly recall the practice of the last generation; and although it is to be hoped we shall not, by a violent reaction, pass again to the other extreme, it seems time to revise our views, or at any rate to re-examine the results of our predecessor's practice.

The argument might be extended to other active measures. The

word, antiphlogistics, is now seldom heard, and the means it included, are so little resorted to in numerous cases, that we doubt not much preventible mischief often results. The public, too, has become so imbibed with the necessity of support and stimulants, that we see the simple antiphlogistic diet and regimen regarded with horror, even by those invalids, who have manifestly strong constitutions, and have been over-feeding.

It is thus not uncommon to see cases which have been "kept up" by full diet, including wine or beer, getting worse, or at any rate not improving under the medicines that are trusted to cure them; which, on a change to the "lowering" system of our youth, at once put on a new aspect. We are by no means sure that there is not now as much high living, and as much need of reducing as ever.

Nitrate of Pilocarpine.—Grandmont (*La France Medicale*) has used this salt of pilocarpine, the extract of jaborandi—*pilocarpus pumatus*, over 150 times in man, and repeatedly in animals. He quotes Metanas:—"Pilocarpine appears likely to render great services in rheumatic ocular affections complicated by troubles of the vitreous body. It is likely to be useful by promoting resorption of exuded material."

In his experiments, Grandmont found that two centigrammes,  $\frac{1}{3}$  grain of the salt produced, *in one minute*, a feeling of hot mounting to the face, which became highly flushed. In less than two minutes, a desire to spit, elevation of temperature, followed by a greater fall in it, as the sweats became more abundant, and acceleration of the pulse. These phenomena continue about an hour. The relative quantity of the blood globules increases in proportion to the amount of sweat. The sphygmographic tracings show that there is entire paralysis of vaso-motor nerves.

The phenomena are more rapidly produced than by jaborandi itself.

Surgical Instruments.—In the list of awards of medals and honorable mention I find the name of M. Colin, successor to the famous Charriere, at the head of the surgical instrument makers, and he was not only awarded the "Grand Prize," but has been promoted to the grade of officer of the Legion of Honor. Dr. Paquelin received a gold medal for his ingenious invention, the thermo-cautery; and Dr. Dieulafoy has been appointed Chevalier of the Legion of Honor for his well-known aspirator, which has rendered such signal service in the hands of both physicians and surgeons. Among the list of appointments to the Legion of Honor you will learn with pleasure that M. Pasteur has been promoted to the dignity of Grand Officer, and M. M. Freury and Peligot to that of Commander in that order, for the services rendered by these gentlemen to science and humanity. M. Dorrault, Director of the *Pharmacie Centrale* of France, and Dr. Ladreit de Lacharriere, Director of the Medical Service at the Exhibition, and Professors Sappey and Trelat, have been promoted to be officers of the Legion of Honor, for the services rendered in their respective departments.—*Br. Med. Jour.*



**Erysipelas and Menstruation.**—Grellety gives the case of a young married woman who was accustomed regularly, on the occurrence of the menstrual period, to suffer an attack of erysipelas of the face. When the flow appeared, artificial means being required usually to bring it about, the erysipelatous rash disappeared. In another case, a woman of 47 years was attacked by erysipelas of the face in the course of some other affection, which also disappeared as soon as the menses appeared. The author of *Rev. de Therap* proposes to call this, *catamenial erysipelas*.

Dal Piaz describes a similar case in which a girl of 16 was the patient. She suffered a long time with erysipelas, which disappeared during her menstrual period.

**Internal and External Use of Peruvian Balsam.**—Dr. Wiss, in the *Deutsche Zeitschr. and Prac. Med.*, recommends the balsam internally in an emulsion.

R.

Bals. Peru,	℥ ss
Mucil. acac.,	3 j
Vital, ovi unius.	
Aq. dest.,	℥ xiiij
Syr. cinnamon,	℥ ij

Sig. Et. emulsio. Dose, a teaspoonful.

In the chronic pulmonary catarrh which commonly ends with appearances of phthisis, patients tire of treatment, but they sometimes again present on account of subacute affections of the mucous membrane.

**Stricture of Oesophagus.**—Prof. Thiersch (*Allg. Med. Cent. Zeit.*) has been convinced by the examination of some preparations in the Leipsic Museum that the chief difficulty in passing a sound through a strictured œsophagus is due not to the narrowness of the stricture, but to the fact that three or four strictures, separated by two or three centimetres of normal mucous membrane, exist one over the other. The bougie usually slips through the first one easily, but is arrested by the second, because the opening lies eccentrically, and not concentrically.

**Diabetes Mellitus Cured by Extract of Nux Vomica.**—Five cases are reported by Dr. Eugene Zarzana in *Gaz. Med. di Roma*. The first patient, a woman, had been passing a large quantity of water for three years; she was very weak, her sight was affected, and her thirst was great. At the time the treatment was begun, she was passing twelve Roman livva of urine in twenty-four hours; it was not albuminous, but contained a large quantity of glucose. At first she was given three-quarters of a grain of the alcoholic extract of nux vomica, dissolved in three ounces of distilled water, and the dose was increased by three-fourths of a grain every three days, until she was taking  $4\frac{1}{2}$  grains per diem. Under this treatment the quantity of urine diminished, and it became very acrid, flocculent and colored by biliary pigment. At the same time glucose diminished until only traces of it could be discovered. The general symptoms improved, and the patient



was restored to her previous good health. The second patient was a large, robust man, seventy-two years of age. During eleven hours, he passed two Roman liyva and eight ounces of urine, which was rich in urates and albumen. Under the use of *Nux Vomica*, the glucose gradually diminished in quantity and finally disappeared entirely.

**Carbolic Acid Poisoning after Intrauterine Injection.**—After the removal of a fibrous tumor of the neck, Dr. Rheinstadter made an intrauterine injection with a ten per cent. solution of carbolic acid. One day he remarked that after penetrating the uterine cavity only a small portion of the solution returned. All at once, the patient fell unconscious, the extremities were taken with tonic convulsions, the face became pale and covered with sweat, the respiration was suspended and, later, became slow and superficial, the pulse could hardly be counted, and the abdomen became distended. Nevertheless, Dr. R. immediately made a subcutaneous injection of musk and ether. Soon the pulse increased, and after four hours the patient regained consciousness. There was no general peritonitis, as there was reason to fear.

**"A Wife at One Hundred Years."**—The Polish journal *Kalischania* of Kalisch, reports the following extraordinary fact: In the village of Sompolus, government of Kalisch, in Russian Poland, there lives an Israelitish widow named Rajela Wilczynoka, aged 100 years. She lives with her daughter, who is herself, 80 years old, and finds herself the ancestor, in the third degree, of a child 13 years. Notwithstanding her great age, the widow Wilczynoka walks without help, sees and hears perfectly and her mind is quick. She was lately married to a merchant 88 years of age, who lives at Kalisch and is named Moses Nachmiel. According to the last census, there are in Austria, 183 men and 229 women who have attained or exceeded the age of one hundred years.

# THE HOSPITAL GAZETTE

AND

ARCHIVES OF CLINICAL SURGERY.

A WEEKLY JOURNAL OF MEDICINE, SURGERY AND THE COLLATERAL SCIENCES.

EDITED BY

EDWARD J. BERMINGHAM, A.M., M.D., and FREDERICK A. LYONS, A.M., M.D.

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## LECTURES.

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### TWO CLINICAL LECTURES ON SOME RARE FORMS OF SPINAL DISEASE.

Delivered at the Pennsylvania Hospital.

BY

J. M. DACOSTA, M.D.

Professor of the Practice of Medicine in Jefferson Medical College. One of the Physicians to the Penn. Hospital.

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## II.

A FEW POINTS OF INTEREST IN CONNECTION WITH ACUTE SPINAL PARALYSIS, TOGETHER WITH ITS DIFFERENTIAL DIAGNOSIS FROM ACUTE SPINAL CONGESTION.

(Reported for THE HOSPITAL GAZETTE.)

CASE III.—(Although this case is of different character from those to which I have called your attention upon a previous occasion and although it belongs to a class of spinal diseases which are of frequent occurrence and by no means rare in their nature, I am induced to give you the history somewhat in detail in order that you may learn by comparing this with the other cases.)

D. W., aged 72, a blacksmith by trade. There is a very old history of syphilis in the case. The patient allows that he had the disease some forty years ago, but denies that the first attack was followed by any constitutional symptoms, or that there has been any repetition of the infection. For a number of years past he has been the subject of difficulty in urination attended with dribbling of urine and great irritability of the bladder. With the exception of this condition and some occasional attacks of dyspepsia, he has enjoyed good health until within the last few weeks. On the 22d of October, 1878, finding the difficulty of holding his water to be increasing, frequently being obliged to rise repeatedly at night, he took a warm sitz-bath and fainted while in it. The next day he complained of a feeling of dizziness when he stooped. He also noticed that he got tired very

easily. There was some lumbar pain. In walking the ground did not feel natural to his feet. He was unable to walk at all in the dark.

When the patient was admitted into the hospital he swayed a good deal from side to side in walking, but could stand straight with his eyes closed and his feet together. His lower extremities were paralyzed partially and he walked with some difficulty. There was no marked atrophy of the legs, or quivering of the muscles of the lower extremities. The grasp of the hand was good, and the man had no vertigo, or if any, it was but passing. There were, in fact, no cerebral symptoms.

Upon examining the eyes the question arose as to whether there was not some incipient choking of the discs, but an expert who made a most careful inspection of his eyes gave it as his opinion that there was none and that what appeared to be choking was but haziness due to a mere optical defect.

This point once settled we had satisfactorily disposed of the question of the origin of the vertigo; it was certainly not caused by any cerebral disease. There was no involvement of the upper extremities so far as we could discover. In fact, by a process of exclusion, I was able to make up my mind definitely that the malady was entirely spinal in its nature.

Upon employing the electric tests, we found that the muscles of the upper extremities responded fully to the Faradaic current; those of the lower extremities not so well, requiring the use of a much stronger current in order to elicit a satisfactory response. The sensibility was tested with pin points and found to be imperfect in the lower extremities.

But, as I told you, there was, at first, in this case, not only imper-gait and loss of sensibility, but there was also marked bladder difficulty. There was constant dribbling of urine, and it was only by means of catheterization that the water could be passed in bulk, and when it was drawn by the catheter it always contained more or less blood. The urine had to be drawn two or three times every day. We had it examined microscopically and with care at the time, and were unable to detect the presence of any tube casts. The amount of albumen corresponded with the amount of blood contained in the voided urine.

Let me now, for one moment, recall to your minds in outline the chief symptoms of the case—the old syphilitic history, infection without any constitutional disturbance; the long standing difficulty of miction and tendency to dyspepsia; the warm sitz-bath taken on October 22d to relieve the vesical irritability; the fainting of the patient in the bath and the subsequent partial loss of motion and sensation in the lower extremities inaugurated with vertigo but without any involvement of the trunk, or upper extremities. The diagnosis is clear, the case was one of acute spinal congestion attended with paralysis of the bladder and bloody urine. There was no atrophy of the muscles of the affected parts; motion



and sensation were only slightly affected, sensation more so than motion.

I have brought the patient before you to-day and you see that, although his gait is much improved, he still walks with some difficulty. His urine has become much clearer in color and his bladder has largely regained its proper contractile power.

I suppose now that you would like to know how we have treated this man. As soon as he entered the hospital we applied wet cups to his back and followed these by the administration of ergot in full doses. Lately, since his condition has improved so much, I have ordered him put upon the compound syrup of the hypophosphates. His lower extremities are rubbed frequently with some coarse material. I think that the wet-cupping was really of very great benefit to the patient. (The hypophosphates were not administered until the patient had recovered from the acute attack.)

I want to call your attention particularly to the very great value of ergot in the above condition: especially is it of value when the spinal congestion is attended with paralysis of the bladder and dribbling of the urine. In such cases it is well to put the patient at once upon large doses of the drug. As much as f3j of the fluid extract of ergot may be given thrice daily without any fear of bad effects. Indeed, in very acute cases of spinal congestion, I have given even larger doses at shorter intervals.

So too in the semi-chronic and chronic spinal paralysis of old persons, where there is congestion of the cord, ergot is an admirable remedy. This is particularly the case where there is coexisting enlargement of the prostate gland. My attention was first called to the value of ergot in cases of enlarged prostate by the late distinguished and lamented Doctor Washington L. Atlee, of this city. Dr. Atlee told me some years ago that in all cases of enlargement of the prostate, whether acute or chronic, he was in the habit of administering the fluid extract of ergot freely with the happiest results.

In old people, in such cases in fact as those in which Dr. Atlee was in the habit of employing it, I should imagine that ergot would have a double effect; (1) by its well known action upon the blood-vessels of the spinal cord, materially reducing their calibre, and (2) by its constricting action upon the vessels of the enlarged and inflamed prostate, diminishing their size, cutting off the increased and superfluous blood supply, and so, if possible, tending towards reduction of the organ to its normal size and character.

All this has been very much of a digression from the real subject of my discourse, viz.: "rare forms of spinal disease," but, after the extended histories of *Cases I* and *II* which I read you on last Saturday and the few explanatory remarks which I then found time to make before the close of the hour, I thought that I could not do better at the beginning of my hour to-day and before proceeding, to discuss more freely with you the several points of uncommon interest in those cases, than to bring this case, so entirely different in its symptoms and character before you and so attempt to emphasize what I had to say to you as much by pointing out and dwelling at

length upon the differences between the first two cases and the last as by any direct statements which I might see fit to make regarding new clinical facts in the former instances.

CASE II, as you will no doubt remember, we determined to be one of rheumatic myelitis, or rheumatic spinal paralysis, and we had settled, at our last meeting, upon the fact that its lesion was the same as in *Case I*—of acute spinal paralysis in the adult—namely in the anterior horns of the cord. It was thus, I told you, that we were able to account for the peculiar symptoms of the cases, the great amount of muscular atrophy and the extreme palsy of the limbs, while sensation was but very slightly affected.

Notice here the marked difference between *Cases I* and *II* and *Case III*, for although the former cases were of different etiology the main symptoms in their latter stages were thoroughly alike. Here we have no atrophy, no cerebral symptoms to speak of, but slight impairment of motion, and considerable impairment of sensation. There you noticed great atrophy, almost entire palsy of the muscles of the legs, but slightly affected sensation, and well-marked cerebral symptoms, such as vomiting, wakefulness, hallucinations with delirium, etc.

I hope you will have these distinctive points in the differential diagnosis firmly fixed in your minds to aid you in your future practice.

Dismissing now *Case III* let me try to impress upon you some of the remarkable clinical features of the former cases.

First, then, let us consider the rapid atrophy of the muscles of the lower extremities in both of those cases. This is one of the most typical and constant symptoms of this class of affections. Though occasionally present in the upper extremities the lower limbs are its most frequent seat. You saw in *Cases I* and *II* the extent to which this atrophy may go and the corresponding extent to which the limb may dwindle. I will have *Case II* brought before you again. By this time, under proper treatment, the limbs have begun to fill up decidedly, but early in the progress of the case the legs were mere sticks in appearance. Wherever the anterior horns of the cord are affected there is, as a general rule, the most marked muscular atrophy of the parts affected. The rapidity with which this atrophy progresses is in proportion to the acuteness and persistency of the attack.

The pathological lesion is one of the "trophic" cells in the anterior horns.

Another point which I desire to emphasize is that this atrophy, as a general rule, is not permanent. In cases where recovery has been more or less complete you will find that the limbs have regained to a greater or less degree their normal shape and power. Of course, the completeness of the return of the limb to its normal shape is dependent upon the completeness of the patient's convalescence. Complete restoration of power and complete return to health are, unfortunately, rare occurrences, but most patients recover so far that they are in future able to get along quite well with the assistance of a cane. While therefore, in the vast majority of cases the muscles remain somewhat weakened and while the atrophy has not been entirely compensated, a fair amount of muscular power and shape will have returned. That



is what is going to happen in this instance, unless something very unforeseen should occur. The real extent of the damage done depends, of course, upon the number of trophic cells which have been destroyed. If enough of them remain intact, when the morbid process has ceased, to minister sufficiently to the supply and nourishment of the atrophied muscles, it is easy to restore their for-a-time lost functions by means of proper nerve-food, friction and electricity in the shape of galvanism, and in the later stages by the hyperdermic use of strychnia.

But is there any test, you will no doubt ask me, beside the tape-measure, which will enable us to judge definitely of the condition of the affected muscles? Is actual measurement the most accurate means at our disposal for judging of the extent to which convalescence has progressed? I can assure you that there is another means which will afford as accurate results as those thus obtained. It is this. When we find upon trial that the faradic current when applied to the affected muscles begins to give better results, when the muscles begin to respond and contract, though feebly, we may accept it as a sure sign of returning health, for it proves to us conclusively that the muscles are becoming more active and that the palsy has reached its height, in fact that improvement has in reality begun. This took place in *Case I* and is taking place in *Case II*.

Can the same conclusion be drawn, you will then ask, from the use of the continuous current? I do not think that it can. The muscles respond to the continuous current long before they answer to the faradic. The continuous current is therefore not by any means so delicate a gauge of their increase in strength—in fact, no gauge at all.

Then again, I wish you to notice that there has been no paralysis of the bladder in either of the cases under consideration (*I* and *II*.) There was, indeed, some temporary vesical difficulty in *Case I*, but it soon passed away. In neither case was there any paralysis of the sphincter of the rectum. There has also been an entire absence of bed-sores and of marked loss of sensibility of the skin (sensation has been well preserved in both cases); an absence, in fact, of all those symptoms and conditions which render chronic spinal paralysis such a terrible malady to treat.

But there is one point in which *Cases I* and *II* have not been typical instances of their kind. The reflex nervous functions have not been in the least impaired in either case. In one case, indeed, they seemed to be exaggerated by the spinal paralysis. As a general thing in acute spinal paralysis the reflex functions are more or less impaired.

How have we treated these two patients? In the early stages of the malady, where the inflammation of the spinal centres is still acute you will find that local bloodletting from the neighborhood of the spine will afford most relief. Joined with this the patient should be occasionally purged and at once put upon the use of large and continued doses of ergot. Treat the case at first exactly as you would treat a case of spinal congestion. When the case has lasted longer this treatment becomes less effectual. It is then the time to give large



doses of the iodide of potassium and to apply systematic friction to the legs. It may also now be well to use the continuous current. In a still later stage, while continuing the iodide of potassium, small doses of strychnia may be given hypodermically. When muscular motion returns the faradic current should be employed.

In *Case II*, by reason of the rheumatic origin of the trouble, we are giving one-thirtieth of a grain of strychnia thrice daily, hypodermically, and are using the faradic current faithfully. The improvement thus far in the case is most marked.

I told you in my previous lecture that the recognition of poliomyelitis or acute spinal paralysis, belongs to the novelties of clinical medicine. The disease is quite frequent in children, but it is only of very late years that a similar state of affairs has occasionally been met with and described as taking place in the adult. The acute spinal paralysis of the adult was first fully described by Charcot and Althaus abroad, and in this country by Drs. E. C. Seguin, of New York, and Wharton Sinkler, of this city.

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## ORIGINAL ARTICLES.

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### ON THE CEREBRAL SYMPTOMS PRODUCED BY IMPACTED CERUMEN.

BY

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Professor of Diseases of the Mind and Nervous System in the University of the City of New York.  
(Read before the New York Neurological Society, November 4th, 1878.)

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There is nothing new in the fact that impacted cerumen in one or both ears is capable of giving rise to notable disturbances of cerebral and nervous action, but the circumstance does not seem to have attracted the attention it deserves, except perhaps so far only as the sense of hearing is concerned. Kramer\* does not even mention the existence of any brain symptoms in connection with the disorder in question, though specially detailing those exhibited as the result of noises in the ear.

Toynbee† however is more explicit—he says:

“The symptoms of a collection of cerumen in the meatus vary according to the nature and position of the mass. Sometimes the whole of the meatus is distended by cerumen, the inner end of which lies in contact with the outer surface of the membrana tympani of which it forms a cast. In these cases there is often giddiness, from the pressure on the chain of ossicles. The symptoms of pressure on the brain are familiar to most surgeons, but it is not generally known that pressure on the contents of the labyrinth produces somewhat analogous symptoms. A mass of cerumen may force inwards the membrana tympani, and the chain of bones until the base of the stapes is pressed against the contents of the vestibule. In some cases of this nature,

\*The Aural Surgery of the Present Day; New Sydenham Society Publication, 1863.

† The Diseases of the Ear, their Nature, Diagnosis and Treatment. American edition, 1860, p. 80.

constant attacks of giddiness occur; in others there is a confusion of ideas and an inability to walk straight, and in a third class there is a feeling of weight and pressure on the head. These symptoms are often combatted by the use of counter irritants and depletion; but the only proper remedy is the removal of the accumulation."

The author then cites several cases in which cerumen had accumulated in one or both ears, in only two of which however were there any cerebral symptoms.

Roosa† states the prominent symptoms of inspissated cerumen in the ears to be sudden impairment of hearing, tinnitus aurium, vertigo and pain in the ear. Subsequently he says on the authority of Prof. Mayer, that mental hallucinations have in rare instances been relieved by the removal of inspissated cerumen and then makes the following interesting statement. "I once saw a lady who though not regarded as a person of unsound mind, seemed to be such and who complained greatly of tinnitus aurium in all its varieties. I found the ears full of impacted cerumen; but she utterly refused to allow me to remove it and I never saw her but once. It would have been very interesting to show the effect of the relief of the tinnitus upon the mental hallucinations of which she seemed to be a victim."

With this very brief reference to aural authorities, I pass to the consideration of several cases in which notable cerebral symptoms were the immediate result of impacted cerumen.

Case I.—Miss C., age twenty-seven, consulted me Sept. 11th. 1866. I found her suffering from vertigo, pain in the posterior region of the head, insomnia, profound melancholy, and hallucinations of hearing. These latter were of a marked character and were scarcely ever absent during the time she was awake. They consisted of voices which whispered to her words of an exceedingly terrible import, such as "You have lost your soul. You have committed the unpardonable sin. You are too vile to live. Go and kill yourself," etc., etc. Sometimes the sentences were much longer and occasionally long speeches were apparently made to her. More frequently however there was for hours the repetition of some one assertion of her total depravity or an order to destroy herself.

Though at first recognizing the hallucinatory character of these words, the idea of their reality was gradually forced upon her and they therefore became true delusions. She began accordingly to conceive it to be her duty to act in accordance with the advice she believed herself to be constantly receiving, and hence she made a determined effort at suicide by plunging a pair of scissors into her neck. Fortunately no serious organ was injured, and vigilant watching prevented a repetition of the attempt.

Previous to her coming under my notice she had been subjected to vigorous medical treatment consisting in the main of cupping and leeching, blistering, purging and the administration of bromide of potassium in large doses. None of these measures were of any avail. Under the idea that there was uterine trouble and that the cerebral

† A Practical Treatise on the Diseases of the Ear, etc. New York, 1873, p. 147.



symptoms were of reflex character, she was sent to an eminent gynecologist who, however, declared her generative system to be in good condition.

My attention was at once attracted to the ears by the statement made by her mother, that at first there had been some difficulty in hearing, though after a little while this had disappeared. I therefore began my examination by an inspection of the ears, and at once found that both meati were obstructed by large plugs of inspissated cerumen. These I softened by the introduction of a few drops of a solution of bicarbonate of soda in glycerine, and the next day by injections removed from the ears masses of cerumen as large each as a marble. The patient was then kept quiet for the remainder of the day, and at bed-time the sixth of a grain of morphine was administered hypodermically so as to insure a good night's rest. On awakening the next morning she announced an entire freedom from dizziness, and that the voices whispering to her were at a greater distance than they had been. The delusions, as to their reality still, however, continued. During the day the pain in the head disappeared, as did also the voices. Little by little the force of the false beliefs was lessened, and after a few days there were no further abnormal, mental or physical symptoms.

CASE II. I. K., a young man twenty-two years of age, came under my observation January 20, 1870, suffering from severe vertigo, noises in the ears, deafness, and intense mental depression. These symptoms had come on suddenly six days before, shortly after a cold bath in which the water had entered the ears. His expression was one of great anxiety; there was an apprehension of impending evil, and he walked the floor of my consulting room with a staggering gait, his hands pressed to his head, and tears running down his face.

On examining his ears, which I was induced to do mainly from the facts that there were pain, tinnitus, and vocal resonance in addition to the special cerebral symptoms, I discovered that both auditory canals were obstructed with cerumen. A few syringes of warm water removed this and the symptoms almost immediately disappeared.

Mr. X, a lawyer of Brooklyn, consulted me about three years since for hallucinations of hearing, together with vertigo, pain in the head, confusion of ideas, insomnia, and frequent flushings of the face from which he had suffered for several weeks. On his way to my house he heard voices apparently saying to him "What is the use of your going to a physician? You are no use in the world. Go and jump into the river. Jump off the ferryboat; jump, jump, now; at this very instant," and so on. He stated that it was impossible for him to follow his profession, for that the voices interfered to the extent of preventing his clearly distinguishing what was being said in his presence. Even as he was talking to me the hallucinations of hearing were present in full force.

These voices did not actually impose upon his intellect, but he stated that he was conscious of a gradually increasing inability to resist accepting them as realities.

Although there were many of the symptoms of cerebral hyperæmia



present I was induced from the fact that the disorder had come on immediately after bathing in the ocean, during which water had entered the ears, to examine these organs in the very beginning of my interview. Both ears were found full of inspissated cerumen. This was thoroughly softened by the solution of soda in glycerine, and removed by syringing with warm water. On the instant the voices ceased and the patient left feeling as he said entire relief from his annoying symptoms.

I heard no more of this patient till about two months afterwards, I read in the newspapers of the day that he had been violently abusive in court of the judge on the bench, and had been punished by fine and imprisonment for contempt, and soon afterward his wife called to tell me of the trouble into which her husband had gotten. As she explained it to me he had imagined that the judge was calling him names and cursing him and had replied in like manner. I had no doubt that there was an accumulation of cerumen and that the hallucinations of hearing had returned in so aggravated a form as to convince the intellect of their reality. A letter from me to the judge secured his release, and on his visiting me I found my suspicions confirmed. The impacted cerumen was removed, and so far as I know there has been no recurrence of the disorder.

These are only a part of the instances in which impacted cerumen has caused cerebral symptoms that have fallen under my notice, but they are typical and nothing would be gained by detailing the others.

As regards the cause of noises in the ears I have no information to offer except to state that it is not the mere stoppage of the external meatus by impacted cerumen, for such closure does not give rise to any subjective sensation. It is true that if the canal be stopped by the finger a sound is heard, but this is derived entirely from the body and is probably from the action of the heart, the circulation of the blood through the tissues, muscular contraction, etc. A cork or other substance put into the ear so as to close the canal and left there without being held by the hand does not give rise to any sound. If, however, the fingers hold it in place it transmits the sound from them as would any other solid substance.

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## HOSPITAL RECORDS.

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### WORKHOUSE HOSPITAL, NEW YORK.

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Reported by A. R. MOTT, JR., M.D., House Surgeon.

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#### CASE OF CONVULSIONS CAUSED BY CONSTRICTION OF THE GLANS PENIS—SERVICE OF DR. T. HERBERT ALLEN.

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The following case, from its uniqueness, as well as its interest from a scientific standpoint, has seemed to me worthy of publication. The principle of the case is that of reflex action. The diagnosis is that of convulsions due to an irritation acting reflexly. It seems to us to

add strength to the theory of those who believe in the potency of a constricted meatus urinarius to produce intense nervous disturbance; and to justify the operation for its enlargement, which is by so many condemned privately, if not publicly.

It may be urged that these cases are not analogous; this is true physically; but we believe them both to be governed by the same principle—that of an irritation applied to a nervous part which acts strongly upon the spinal cord and induces disturbance reflexly, of which this case affords an exaggerated illustration.

I might add that our familiarity with this class of persons impels us to doubt their word. It is highly probable that this man was hypochondriacal, and imagined he had nocturnal emissions. It is not an unusual idea with such persons that emissions can be prevented by tying something around the penis.

John English, native of England, clerk, æt. 46. Admitted to hospital Dec. 23, '78. The patient had fallen from his bunk in a convulsion and was semi-conscious; showed no signs of injury. Pulse, 120; temp., 102. Resp., normal; pupils slightly contracted; he manifested no annoyance on being disturbed.

Ordered pulv. jalap. comp. ʒj. Patient had not emerged from his stupor since admission.

Dec. 24.—Patient slept until 5 A. M., when he had several convulsions. Pulse, 120; temp., 101½; he continues in this stupor, and has passed his feces and urine in bed. Has talked aloud during the day, but incoherently. Urine normal. He continued in this stupid condition until the evening of Dec. 25th, 1878. Accidentally it was observed that the glans penis was slightly swollen, and a piece of twine was found tied twice around the penis posterior to the corona-glandis, not tightly enough to impede the passage of urine. The string was immediately incised: an undurated band has been formed around the penis by its presence. Half an hour after the string was removed patient asked for some water which he drank; and said he felt "perfectly well." Did not remember anything which occurred since admission. Says his health has been good; has never had "fits," and is temperate.

Dec. 28.—Patient has shown no sign of convulsions, and is discharged *cured*.

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### PERISCOPE.

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#### SALICYLIC ACID IN SCARLET FEVER AND DIPHThERIA—BY ARTHUR EDWARD POWNALL.

It may be interesting to some of our readers to know that in salicylic acid we have one of the most reliable remedies in the treatment of scarlet fever and diphtheria. For the last three years I have used, with unvarying success, the salicylic acid suspended in mucilage in both mild and severe forms of scarlet fever, and have seen the throat-symptoms and fever rapidly abate, and the patients make rapid recoveries. On being called to a case, I have given doses varying from five

to ten grains every two hours, until the throat-symptoms and fever abated, and find that little patients, for whom we can do so little, when obliged to use the mop or brush to the throat, experience no inconvenience in taking this medicine, which, being simply in a state of suspension has a chance of, at least a portion of it, remaining on the throat and so acting as a topical remedy, whilst the remainder acts as an invaluable anti-pyretic.

The success in cases of scarlet fever has led me to try the same remedy for diphtheria; and I am happy to say, that, in the most virulent cases of diphtheria, I have seen the pellicle broken up and the diphtheritic patch removed in a most marvellous manner. Indeed, since the use of salicylic acid in diphtheria, I have not seen one fatal case, although several were of a very dangerous type. It is but fair to say that, in diphtheria, my mode of action is giving the salicylic every four hours, and tinctura ferri perchloridi (P. B.) alternately with it. Some may probably say, "How do you prove that it is salicylic acid which removes the patch, when you use iron also?" My answer is, that at first, I trusted solely to salicylic acid, and found, in mild cases, that it answered every purpose; but, that, in more severe cases, accompanied with much debility, there seemed to be a tendency to return of the disease on discontinuing the remedy, I was thus led to use the iron, alternately with the acid, as a blood-restorer. To prove that iron was not the sole active agent in the cure, I can but point to the many failures of iron as a local application in the past treatment of diphtheria; whereas, with the salicylic treatment, I have not known one single case of the pellicle spreading under its use.

I append the form I use:

R.

Acidi Salicylici,	3 i vel. 3 ij.
Syrupi Simplicis,	3 iv.
Mucilaginis Tragac,	3 i.
Tinctura Aurantii,	3 iv.
Aquæ. q. s. ad,	3 vi.
Fiat Mistura,	
Capiat,	3 iv, 2 dis horis.— <i>Brit. Med. Jour.</i>

#### DOES SEPTICÆMIA OCCASIONALLY SIMULATE SCARLATINA?—BY GEORGE MAY, JR.

On Nov. 21st, Master N. was observed by his school-fellows to be suffering from a rash. Three cases of scarlatina had occurred during the present term—the last patient having been removed to a detached house one month previous. The boy looked ailing, and complained of slight headache. There was a rash resembling scarlatina in its first stage; that is, with portions of natural skin between the bright spots; the rash being chiefly visible on the body, and, to a less extent, on the limbs. There was also redness of the fauces. The tongue was moist, white, and slightly furred; the pulse did not exceed 80, and the temperature never rose above 100. He was ordered to be isolated for further observation, but not to be removed to the house for infectious



cases ; and an opinion was given that he was not suffering from scarlatina. Two days afterwards, I noticed a wound on the thumb, and he admitted there was some slight tenderness, extending to the wrist. On the 27th, desquamation commenced freely on the affected arm, and disclosed a broad band of inflamed lymphatics. Subsequently desquamation occurred over the whole body.

The next day Nov. 30th, one of my colleagues at the Royal Berks Hospital consulted the medical staff about a case of rash occurring after resection of the tibia. On Nov. 15th the right tibia had been divided, and on the 22nd the left. On the 27th a rash appeared. I pointed out that the appearance of the rash, the low temperature, and the pulse were all against the probability of scarlatina ; that the inguinal glands were enlarged ; and ventured to predict that desquamation would commence in the leg. It was decided not to remove the child to the wards for infectious cases. On Dec. 1st, right leg, which had suppurated, desquamated freely ; the other leg being quite smooth, and the body only just commencing to desquamate. At least twelve children had for three days been exposed to infection, but had not suffered.

In October, 1864, there was published in the *British Medical Journal*, a case of compound dislocation of the thumb, reported by my partner, Mr. Harrinson. The usual scarlatinal symptoms were present ; but the patient did not live long enough for the desquamation to take place. A *post mortem* examination showed inflammation of the veins of the arms. Commenting on this case, Mr. Jonathan Hutchinson observed : " The occurrence of scarlet rash is not at all unusual after accidents and after operations, especially in cases of blood-poisoning. In 1854, a case of mine was published in the *Journal* which the writer of the article, *Scarlatina* in *Ziemssen's Encyclopædia*, regards as scarlatina because the cervical glands were enlarged. This opinion may perhaps have been due to an omission on my part in not mentioning that the affected glands were at the back of the neck, irritated by the lymphatics leading from the wound, and not those usually enlarged in scarlatina. I purposely abstain from quoting cases in the practice of my friends.

Can we correctly diagnose these cases ? Speaking from my own experience, I think we can. They do not resemble a typical case of scarlatina. There is an absence of the lobster-like look. There may be redness of the tongue and fauces ; but these symptoms are very slightly marked. Whilst the desquamation is very free, large flakes of skin being cast off, one can often detect inflamed lymphatics. And, lastly, they do not infect others. In my hospital practice these cases are never isolated, and there has been no reason to regret the result. *Sir James Paget* suggests that a surgical operation gives a peculiar liability to the reception of an epidemic or contagious morbid poison, and any one of these being imbibed immediately after the operation produces its specific effect in much less than the usual period for incubation, or, as he thinks more likely, the patient had already imbibed the poison, but might not have shown any symptoms, had it not been for the operation. Of course this cannot be disproved, but why do

other exanthematous diseases not occur in a similar manner?

In a carefully written article in the *Journal*, Nov. 9th, the probability of these cases being due to septicæmia is argued against. In the cases mentioned above, there was distinct evidence of inflammation of the lymphatics, and blood-poisoning. Are we sufficiently acquainted with the natural history of septicæmia to affirm that it never causes hyperæmia of the capillaries and so simulates scarlatina?

As a matter of professional interest, I may remark that the first recorded case appears to have occurred in 1876.—*Brit. Med. Journal*.

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#### REMOVAL OF SUB-RETINAL CYSTICERCUS FROM THE EYE WITH RESTORATION OF VISION.

In Graefe's *Archiv. of Ophth.*, 1878, is related this remarkable case. The patient, 21 yrs. old, complained of failing sight for some time. He could distinguish with the affected eye letters three inches long only at 1 foot distant, and the field of vision was limited at the lower part. An examination showed a sub-retinal cysticercus at the upper part of the eye and near the equator of the globe. Prof. Graefe exposed the superior rectus muscle, separated it from its insertion into the sclera and dissected it up for some distance, laying bare the globe just over the cysticercus. With a narrow cataract knife a meridional opening through the sclera,  $\frac{1}{2}$  centimetre long was made, and with a pair of forceps the parasitic vesicle was seized and a part, fortunately comprising the head, was drawn out. A small amount only of the vitreous humor escaped. The operation was followed by severe but temporary pain, and two days after severe symptoms set in, but were subdued by cold applications. Ten days after the operation an ophthalmoscopic examination showed that the cysticercus-vesicle was collapsed and upon it were two blood-clots, while the vitreous was so cloudy as to prevent a clear view of the fundus, and the patient could read the large letters  $1\frac{1}{2}$  ft. distant. Four weeks later the letters could be distinguished at 15 feet, and the vitreous was still cloudy. Four weeks afterwards the patient could read Zaeger's type, No. 21, at 15 feet. With the ophthalmoscope the vesicle could be plainly seen forming a sort of connective-tissue band in the vitreous chamber. Double sight now existed in all points of the field of vision due to the vertical disturbance from the section of the tendon of the superior rectus muscle, but this was relieved by the advancement of that muscle.

S. B. ST. JOHN.

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#### CORRESPONDENCE.

##### SHAFFER'S LATERAL SPLINT FOR CLUB FOOT.

*To the Editors of the Hospital Gazette :*

In your issue of Dec. 5th, ult., Dr. Sayre remarks, (Clinical Lecture on Club Foot, page 463,) in commenting on an apparatus which meets



with his approval. "It is a modification of Taylor's apparatus for this deformity, inversion of the foot, and has in addition to the movement at the ankle a hinged lever and screw, by means of which the foot can be pushed into position."

So far as I know I was the first to use the "hinged lever and screw" in the mechanical treatment of club-foot, and in the *Medical Record* for Nov. 23d, 1878, I fully described an apparatus embodying a "hinged lever and screw," and gave engravings illustrating the action and application of the instrument. Full credit is there given to Dr. Taylor for the form of splint which was modified, but as my alteration introduces a lateral hinge with a lever and screw, in place of the simple antero-posterior joint of Dr. Taylor's "ankle support"—making it, practically, a new apparatus, I feel that, at least, my name should appear in connection with the "modification of Taylor's instrument" which Dr. Sayre describes; and as the modification is an important one, changing the principle upon which the apparatus acts, I feel that I am justified in calling the resulting splint my own. The ease with which this splint is applied, and the "hinged lever and screw" which permits the application of the requisite degree of force within wide extremes to any purely later deformity, makes this apparatus of great utility in overcoming, in many cases without the customary section of any of the opposing tissues, the various malpositions of talipes, not due to the strictly speaking post-tibial contractions.

It is, therefore, with great satisfaction that I find that Dr. Sayre in his lecture speaks of an apparatus presenting the "hinged lever and screw," as "a most ingenious instrument," and also stating that it is "one of the most useful instruments for this purpose which I have seen"—a conclusion which fully accords with my own experience.

Yours truly,

NEWTON M. SHAFFER.

31 W. 36th St., Jan. 8th.

#### NEWS ITEMS AND NOTES.

**A New Course on Didactic Dermatology at the University of Pennsylvania.**—Professor L. A. Duhring is at present delivering a special course of lectures on didactic dermatology at the Hospital of the University of Pennsylvania on successive Saturday afternoons.

**The Philadelphia County Medical Society.**—A movement has quite recently been set on foot by Henry H. Smith, M.D., the president of the society, to have the society divided into sections for the special consideration of topics in medicine, surgery, obstetrics, ophthalmology, etc. A committee of conference has already been appointed to wait upon the other societies, viz., the pathological and obstetrical.

**The Abuse of Free Dispensaries.**—The Philadelphia Society for Organizing Charitable Relief and for Suppressing Mendicancy is, we understand, to undertake in future the supervision of the much abused Philadelphia dispensary system. Medical aid is not to be extended to the same person a second time unless he shall bring with



him a certificate from the ward superintendent of the society declaring him to be deserving. This step in the right direction ought to be followed by good results.

**Premature Lactation.**—I was called to attend the child of Mrs. H., aged five months, and found it suffering with trismus nascentium or infantile lockjaw. The apartments were damp and other hygienic conditions bad, and probably caused the disease. Opium, chloroform, nitrate of amyl were tried without avail, and the child died the following day in a fit or spasm. Previous to leaving the house I carefully examined the lungs and heart in hope of finding some inflammatory disease of lungs which might account for the tetanus, and also the mammary glands. These glands were enlarged, and upon the application of the breast-pump milk was drawn from them both. There is a *theory* that premature lactation causes the tetanic symptoms in children, but it *has not* been established as a fact.

The recent works on infantile complaints state that lactation occurs in French and German children, but seldom, if ever, in those born here. Dr. Good, in his "Study of Medicine," reports three cases of this idiosyncrasy in girls and also one in a male Indian. An English midwife informs me that in England it is quite a common thing to see children a few months after birth give milk when the breast-pump is applied. The malformation (if it can be considered as such) is but an abnormal development of the glands due to some cause not understood.—*Luigi G. Doane, M.D., New York.*

**Metallotherapy in the East.**—M. A. Cegan, a physician at Alexandria, has published recently, in the *Gazetta Medica Italiana*, of Padua, a very interesting article upon this subject. Metallotherapy, he says, has been long in use among the Arabs, and is at the present time one of the most popular methods of treatment. Every child wears heavy metal rings upon its arms and legs until dentition is completed; and these are believed by Mr. Cegan, as well as the Arabs, to prevent attacks of convulsions, which in that country are sometimes fatal, the author's own child having been a victim. The rich use rings of gold; but the most potent resource is the sacred cup preserved in the Mosque at Cairo, and which may be hired from the chief priest for a high sum. This cup is called Fazet Etrakob, and is made of polished leather. It has verses of the Koran on the inside, and around its edges are a number of little medals also bearing inscriptions; the bottom is ornamented with little crossed chains. Dr. Cegan was a witness of the proceedings of the chief priest in a case of convulsive hysteria. After the patient had been put to bed, her legs, neck, and back were surrounded with copper rings; her arms and wrists were loaded with massive gold; and upon her head was placed an ancient gold coin. The chief priest then let fall into the cup a piece of gold and some pure water, and then some chains and other metallic articles. The patient swallowed this singular draught, care being taken to shake it well before being administered. By the third day all the convulsive symptoms had disappeared. The wealthy classes also treat their children's herniæ by

metallic applications; after reducing the intestine, they apply a small bag containing fifty napoleons over the internal ring and leave it there some time. Blepharospasm is treated by putting a brass ring in the ear; the same procedure is followed in ocular neuralgia; if this fail, another ring is fixed in the ala nasi.

**Physicians Protective Association.**—The physicians of Long Branch, N. J., have recently organized a medical association. During one of their meetings a query arose as to the number of people who never paid their doctor's bills, and a committee was appointed to investigate the matter. It was found that there are 300 families who do not and have not for years paid a physician, but call upon first one and then another, as occasion requires. It was determined to organize a protective union.

**Foreible Fracture.**—Referring to "forcible fractures" of bones for osseous ankylosis, Mr. Bryant stated lately, at Guy's Hospital, that he had seen three cases so treated, "one of whom escaped only by the skin of his teeth; the other two dying of acute abscess of the joint." He preferred in such cases Adams' operation of subcutaneous osteotomy.

**Medical Classes in Austria.**—The *Wiener Medizinische Press*, Nov. 17th, acknowledges that the decrease in the classes in attendance upon the Austrian medical schools has been enormous, and gives the following data: In 1870, the University of Vienna had 1271 in 1869 it had 1368; Prague, 418; Graz, 257; Innsbruck, 80; making a total of 2,026 medical students. In 1877, Vienna had 712 (1878, only 658); Prague, 238; Graz, 138; Innsbruck, 45; a total of 1133. All these universities combined have not to-day so large a number of students as the Vienna school seven years ago.

**New Method of Treating Whooping Cough.**—In the 51st meeting of the *deutscher Naturforscher und Aerzte*, Dr. Leeman, of Berlin, reports unusually good results from a new method of treatment for whooping cough. Based upon the investigation of Letscherich and Tschamer, he considers pertussis a disease produced by a vegetable parasite in air passages, and claims that the reason why carbolic acid has never acted is because it never has been applied thoroughly and in a proper manner. The method of Leeman consists in covering the bed of a little patient for the night with a blanket, upon which there has been sprinkled 5 per cent. solution of carbolic acid. No bad results, in connection with the tonic effects of the acid, has been observed and the cases have been entirely cured in 14 days.

**The New Pennsylvania State Hospital for the Indigent Insane at Norristown.**—The commissioner for the erection of the Pennsylvania State Hospital for the insane at Norristown, reports that up to January 1st, 1879, \$281,876.83 have been paid out by the treasurer.

The contract for building was made with John Rice on March 18; ground was broken on March 21; masonry commenced April 8; brick-work on April 30.



Five ward buildings are under roof, two of which are plastered complete and in which the carpenters are now putting the finish; and two others are partially plastered. The other two ward buildings (there being seven in all under contract) have the foundations built; brickwork up to the first joists, which are on, also the marble belting set. In this condition the work has been covered up for the winter.

The boiler house and laundry building are under roof; the foundations of the kitchen building have been excavated; excavation is made for the chapel building, and most of the masonry is built for the corridors and passages connecting the various buildings. Most of the grading necessary immediately round the buildings has been done, and the sewerage system is well advanced and in use for the buildings now under roof. It is expected that the buildings will be completed ready for use next fall.

The following are the recently elected officers and committees of the Commission:

President—Joseph Patterson.

Vice-President—General Robert McAllister.

Treasurer—Herbert M. Howe, M.D.

Secretary—Andrew J. Ourt, M.D.

The Standing Committees for the ensuing year are:

Committee on Hospital—William H. Miller, Chairman; John Shouse, Thomas G. Morton, M.D., Herbert M. Howe, M.D., Robert McAllister.

Committee on Grounds—L. W. Read, Chairman; James S. Chambers, N. A. Pennypacker, M.D., Robert McAllister, Wm. H. Miller.

Auditing Committee—John Shouse, Chairman; James S. Chambers, N. A. Pennypacker, M.D.

## BULLETIN OF THE PUBLIC HEALTH.

Issued by the Surgeon-General U. S. Marine Hospital Service, under the National Quarantine Act of 1878.

[No. 26. Week ended January 4, 1879.]

OFFICE SURGEON-GENERAL, M. H. S.,  
Washington, D. C., Jan. 8, 1879.

*Yellow Fever*—The present issue of the *Bulletin* is the first for which no cases or deaths were reported.

*Massachusetts*.—Week ended Dec. 28. In 18 cities and towns with an aggregate population of 808,200 there were 355 deaths, an average annual ratio per 1,000 of 22.90. The rate varying from 4 at Pittsfield and Fitchburg to 16 at Cambridge and Springfield, 21 at Fall River, 23 at Lowell, 26 at Boston, 27 at Gloucester and 28 at Worcester, to 30 at Salem and Somerville. The principal "zymotic" diseases caused 20 per cent. of all the deaths—46 being from diphtheria and croup, 10 from scarlet fever. Phthisis caused 58 deaths, pneumonia, 39 deaths.



*Boston*.—Week ended Jan. 4. Deaths from all causes, 178. Ratio 26; 26 cases of scarlet fever, 10 deaths; 24 cases of diphtheria, 9 deaths; 39 deaths from phthisis, 15 from pneumonia, 10 from bronchitis.

*New York*.—Week ended Jan. 4. Total deaths, 555. Annual ratio, 26.4; 85 deaths from phthisis, 64 from pneumonia, 19 from bronchitis, 53 from scarlet fever, 33 from diphtheria—the latter disease very prevalent.

*Brooklyn*.—Week ended Jan. 4. Total deaths reported, 240. Ratio 22.11; 57 cases of scarlet fever, 7 deaths; 49 cases of diphtheria, 12 deaths; 11 deaths from croup, 24 from phthisis, 30 from acute pulmonary diseases.

*Baltimore*.—Week ended Jan. 4. Total deaths, 137. Annual ratio, 19.5; 28 deaths from phthisis, 24 from pneumonia, 9 from diphtheria, 2 from scarlet fever. Total deaths in 1878, 6,733—a ratio of 18.4 to each 1,000 of the population.

(January 8, 1879.)

*District of Columbia*.—Month of December. Total deaths, 321. Annual ratio, 24. Death rate in the white population, 19; in the colored, 33.7. "Zymotic" diseases caused 52 deaths; phthisis, 61; pneumonia, 30; bronchitis, 10.

*Richmond*.—Two weeks ended Jan. 4, 54 deaths. Annual ratio, 17.7; 7 deaths from phthisis, 9 from scarlet fever, 3 from diphtheria.

*Charleston*.—Week ended Dec. 28. Total deaths, 34. Annual ratio, 35.

*Cleveland*.—Jan. 1st. to 4th. Deaths, 38; 9 cases of diphtheria, 7 deaths.

*Milwaukee*.—Week ended Dec. 28. Total deaths, 25. Annual ratio, 11.5. Diphtheria prevalent.

*Cincinnati*.—Two weeks ended Dec. 28. Total deaths, 234. Annual ratio, 21.7. "Zymotic" diseases caused 33 per cent. of the deaths; 51 being from scarlet fever, 14 from diphtheria. Phthisis caused 20 deaths; acute pulmonary diseases, 33 deaths.

*Chicago*.—Two weeks ended Dec. 28. Total deaths, 281. Annual ratio, 16; 25 deaths from phthisis, 44 from acute pulmonary diseases, 23 from diphtheria, 6 from scarlet fever; 7,422 deaths were reported in 1878, a ratio of 16 per 1,000.

*St. Louis*.—Week ended Dec. 22. Total deaths, 101. Annual ratio, 10; 28 deaths from "zymotic" diseases. During the yellow fellow epidemic there were 15 deaths from the disease in the city, and 40 deaths at the Quarantine station. All but one of these decedents were refugees.

*New Orleans*.—Week ended Dec. 22. Deaths reported from all causes, 79. An annual ratio of 20. In the white population the death rate was 18.5; in the colored, 23.

*Bermuda*.—The U. S. Consul reports that in a population of over 15,000 there is rarely more than one death per week, and that the Island is remarkably free from all infectious diseases.

*Havana*.—Week ended Jan. 4; 9 deaths from small-pox, 4 deaths from yellow fever.

*Great Britain.*—Week ended Dec. 14. In twenty large towns with an aggregate population of 7,270,000 there were 3,844 deaths, an average annual rate of 27.6 per 1000 of the population. The deaths from scarlet fever were 177 against 223, and 197 in the two preceding weeks. The death rate at Portsmouth was 19; Brighton, 22; Plymouth, 28; Sheffield, 28; Manchester, 35.

*London.*—Week ended Dec. 14. 1698 deaths from all causes. Annual ratio 24.8. Diphtheria caused 14 deaths; measles, 34; whooping-cough, 47; scarlet fever, 46; other fevers 33. Deaths from acute diseases of the respiratory organs numbered 428, 441, 460 and 501 respectively, for the *four weeks* preceding Dec. 14. In the latter week 17 deaths from small-pox occurred, and 300 cases of the disease were estimated to exist in the city, there being 198 cases in the hospitals on Dec. 14. In Deptford the spread of small-pox has been traced to a "wake" that had been held on the body of a child who had died of the disease.

*Liverpool.*—Week ended Dec. 14. Total deaths 384. Annual ratio 38; 40 deaths from scarlet fever.

*Birmingham.*—Deaths from all causes, 227. Annual ratio 31; 23 deaths from scarlet fever.

*Dublin.*—Week ended Dec. 14. Total deaths 230, an annual ratio of 38. Acute pulmonary diseases caused 87 deaths; phthisis, 18 deaths; small-pox, 8 deaths. 103 cases of the latter disease remained in the hospitals on Dec. 14.

The death rate for the week at Glasgow was 30; Edinburgh, 19; Cork, 28; Londonderry, 22.

*Paris.*—Week ended Dec. 12. 955 deaths. Annual ratio 23.7. Diphtheria caused 17 deaths, enteric fever 14, small-pox 4 deaths.

*Vienna.*—Week ended Dec. 7. 396 deaths. Annual rate 28.3. 16 deaths from small-pox, 35 from diphtheria.

*German Empire.*—Week ended Dec. 7. In 149 cities with an aggregate population of 7,365,587 there were 3,425 deaths, an average annual rate of 24.2 per 1000 of the population. 46 per cent. of the deaths were of children under 5 years of age. There were three deaths from small-pox, 96 from scarlet fever, 198 from diphtheria, 304 from pneumonia, 483 from phthisis.

*Berlin.*—Week ended Dec. 7. Total deaths 493. Annual ratio 24.8. 1 death from small-pox, 11 from scarlet fever, 42 from diphtheria, 29 from pneumonia, 57 from phthisis.

*St. Petersburg.*—Week ended Nov. 30. Total deaths 457. Annual rate 35.8. 35 deaths from small-pox, 30 from enteric fever, 70 from pneumonia, 68 from phthisis. Late advices state that the plague has reappeared on the northern shores of the Black Sea where it is supposed to have been imported by Cossacks returning from Turkey. Astrakan is the central point of infection, and the Russian health authorities are making vigorous efforts to prevent the extension of the disease.

*Calcutta.*—Week ended Nov. 9. Total deaths 365. Cholera caused 15, fevers 147 deaths. Annual ratio 44.3. Rate at Madras 45, at Bombay 32.

In *England* during the past year tents have been used for the treatment of cases of scarlet fever and small-pox in towns where these diseases prevailed in epidemic form, with most satisfactory effect in arresting their spread.

The latest returns give the death rate at Alexandria as 31; Naples, 23; Rome, 22; Venice, 26; Lisbon, 31; Barcelona, 34; Munich, 30; Hamburg, 27; Cologne, 20; Brussels, 23; Amsterdam, 22; Copenhagen, 23; Stockholm, 16; Warsaw, 27.

ROBERT WHITE, JR.

Assistant Surgeon, M. H. S.

For the Surgeon-General, M. H. S., in his absence.



# THE HOSPITAL GAZETTE

AND

ARCHIVES OF CLINICAL SURGERY.

A WEEKLY JOURNAL OF MEDICINE, SURGERY AND THE COLLATERAL SCIENCES.

EDITED BY

EDWARD J. BERMINGHAM, A.M., M.D., and FREDERICK A. LYONS

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## LECTURES.

### A CLINICAL LECTURE ON A CASE OF EPILEPSY OF TRAUMATIC ORIGIN IN A CHILD SUFFERING FROM MALARIAL CACHEXIA.

Delivered at the College of Physicians and Surgeons New York.

BY

ABRAHAM JACOBI, M.D.,

Clinical Professor of Diseases of Children.

[Reported for THE HOSPITAL GAZETTE.]

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This boy, nine years old, was healthy up to the age of three years, when, while living at Jamaica, Long Island, he had a severe and long-continued fever, on account of which the physician in attendance advised the parents to change their residence. At one time during the course of the fever the child had an attack of convulsions. It lasted twenty-four hours, and there was never any return of the trouble.

Two years ago, when seven years of age, he had a fall from a high fence, and this was immediately followed by convulsions, which continued for a day and a night. There was no external wound, and the boy soon recovered his usual health. In about six months afterwards, however, he began to have convulsive attacks of an epileptiform character, occasionally; and as time went on, these were noticed more and more frequently, until they recurred almost every day, and sometimes several times during the same day. About two months ago the general convulsions ceased altogether, and he now suffers from epileptiform attacks of a milder character, but still quite frequent. He is always aware when they are coming on, and they are always preceded by pain in the præcordial region. The loss of consciousness comes on very shortly after the præcordial pain begins.

In children, epilepsy is frequently much less marked in its manifestations than in adults, and I have repeatedly seen instances of it in which there was nothing whatever to mark the seizure except such a præcordial pain as has been noted in this case. It is well to remem-

ber in this connection, too, that sometimes the attack is characterized only by a staring fixation of the countenance or a momentary start on the part of the patient. The child may be seated at the table or playing with its accustomed vivacity, when suddenly you will notice this vacant stare come over its face, and then presently it will go on with its eating, or its playing, as though nothing had happened. When such a phenomenon is observed you should be on the lookout for the occurrence of convulsions in the child at any time.

In the present case we have a clear history of a local cause for the attacks, which have now occurred, with greater or less severity and frequency, for two years past, with the exception of the convulsions which occurred when the boy was three years old, and which were in all probability due to an unusually high degree of temperature during the course of the fever from which he was suffering at the time, he never had a seizure of this kind until he received the fall two years ago; and I think we can therefore safely exclude all idea of the trouble having its origin previous to that date.

The attack of fever which has been mentioned in the history as occurring when he was three years old, was no doubt malarial in its nature, and on resorting to a physical exploration here, we find the spleen still very markedly enlarged. The splenic dulness on percussion measures fully four inches in one diameter and two and three-quarters in the other; which is larger than the normal area in the adult. The influence of the malarial poison in the system has produced dilatation of the blood-vessels here, and the long-continued hyperemia consequent upon this has resulted in a real hypertrophy of the organ. Among the measures that we may employ for causing contraction of the blood-vessels in such a case as this are, ergot, quinine, and electricity. In applying the latter, the Faradic current should be used, because the galvanic can scarcely be made to reach the spleen at all. In addition, ice-cold water is sometimes of great service as a local application in these cases, especially if there is still more or less pain remaining; and the cold douche, with a stream of considerable size and poured from some distance, has sometimes been resorted to with very good effects.

The treatment of hypertrophy of the spleen is usually very tedious, and if there is a very large formation of new tissue present it is, as a rule, hopeless. It may be that here the process is still going on, being as yet incomplete; and, if this is the case, the iodide of potassium may possibly prove of service. The iodide of iron would also probably do good, if it were not contra-indicated by the condition of the pain; and in the present instance we should not neglect to take this into consideration.

It behooves us to inquire into the character of the first convulsion which the boy had after the injury which he received, and the subsequent symptoms. There does not seem to be any history of a permanent disease of the brain, and, therefore, it is not probable that there was a fracture of the internal plate of the cranium produced by the fall. This would no doubt have resulted in an abscess; but still it is possible that a little spicula of bone may have given rise to the inter



mittent convulsions from which the patient has suffered. It seems more probable to me, however, that small localized hemorrhages, due to the injury received, have resulted in localized encephalitis. When such a condition is present, a little alteration of the circulation of the part, produced, it may be, by a simple change in the position of the patient, is sufficient to bring on a convulsion.

On making an examination of the chest here, we find that the heart's action is rather feeble ; both the first and second sounds being something indistinct, though there is no murmur present. I should conclude, from what I observe, that this character of the heart-sounds is due merely to an insufficient contraction of the organ, on account of the general anæmia existing in the system. This is not infrequently the case where the quantity of blood supplied to the cardiac muscles is less than it should be.

The slowness of the heart's action is quite noticeable in this case. Ordinarily this is more frequent than normal when there is general anæmia ; but in exceptional instances, as here, its action is slow and irregular. At all events, in the management of the case it will be necessary to pay a good deal of attention to the patient's general condition.

As a result of a single and comparatively light attack of intermittent fever, we frequently see individuals completely blanched in appearance ; while the spleen is engorged with blood. If, when this is the case, a good dose of quinine is given, (and especially if this is combined with ergot or ergotine) it will have the effect of causing the vessels to contract, and the organ will be squeezed comparatively dry, like a sponge. Even here, although so much time has elapsed since the malarial poison entered the system, it is possible that the same effect might be produced by a combination of quinine and ergot.

As to the epilepsy, which has formed so marked a characteristic of the case, it is difficult to say now whether it has been due to localized encephalitis, a spicula of bone pressing against the brain, or meningitis. It seems to be a somewhat complicated case, about which it is impossible to give a decided opinion until the boy has been longer under observation, and we have had time to notice what the effect of treatment is. If there were encephalitis present we should expect a greater or less rise of temperature. Here it is just 100—scarcely above the normal; but still this does not exclude such a condition. If there were encephalitis, iodide of potassium and ergot would be indicated. But it may be that the marked anæmia here present has a great deal to do with the epilepsy. If that were so, of course, iron would be strongly indicated ; but, as previously intimated, that would hardly be appropriate if there is any actual brain-trouble now.

Without deciding as to the exact nature of the case, then, I shall try the effect of quinine and ergot at first. I will therefore order about ten grains of quinine and fifteen grains of ergotine a day for one week, and at the end of that time will see if any result can be noticed ; after which we will be guided in the future treatment of the case by the indications that seem to manifest themselves.



## ORIGINAL ARTICLES.

## A NEW METHOD AND INSTRUMENT FOR THE DIAGNOSIS OF REFRACTION.

BY

WM. THOMSON, M.D.

Ophthalmic Surgeon and Lecturer at Jefferson Medical College; Emeritus Surgeon to Will's Ophthalmic Hospital, Etc., Etc.

(Read at the Last Meeting of the American Ophthalmological Society.)

The method and instrument upon which I have expended much time and thought of late and to which I desire to call the attention of the profession is intended to enable the physician to recognize promptly the presence of ametropia, and to determine its degree without the aid of test types, or glasses, the empirical use of which, as we all know, is attended by such serious expenditure of time and patience. The entire paralysis of the accommodation with atropia is essential in this as in every other exact study of refraction.

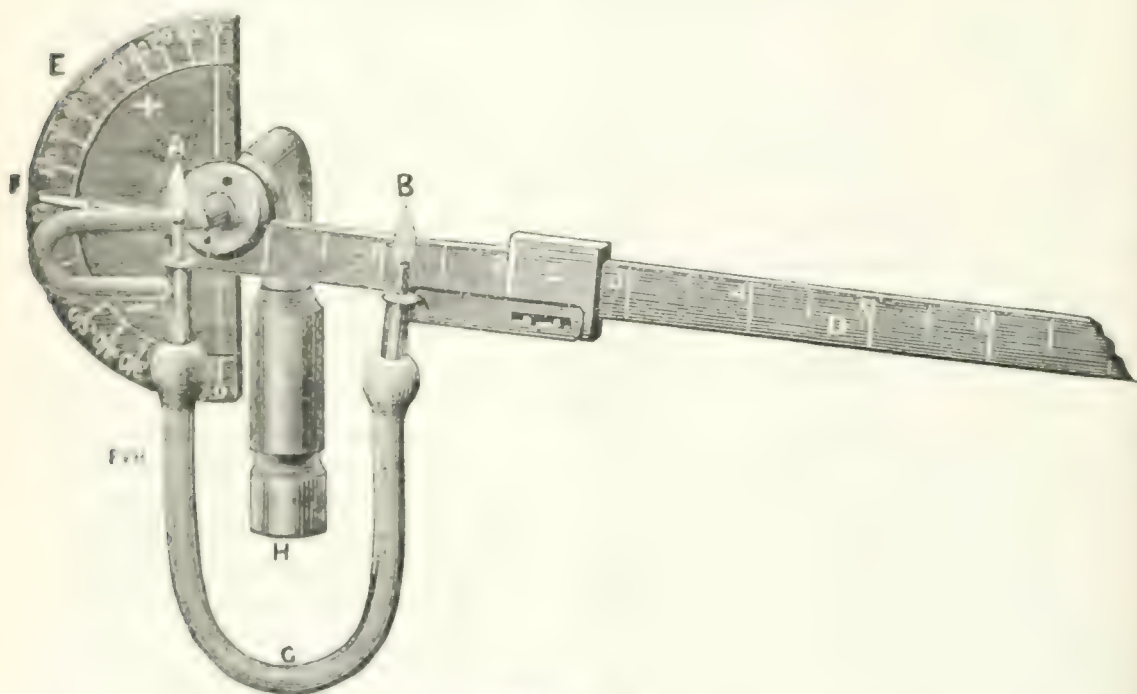


Fig. 1.

The instrument, which I venture to call an *ametrometer*, is shown in the wood cut, and consists of a small fixed gas jet A, a second one B, attached to a box C, which slides upon a bar D. The jets are connected by a flexible rubber tube G. The end of the bar F, forms a pointer which by elevating or depressing the bar can be placed at any part of the graduated half-circle E, which is fixed firmly to the thimble H, by means of which the entire instrument can be attached to a common gas burner, and the lights regulated by its stop-cock. We have here a portable and simple instrument giving one fixed light A, and a second B, which can be placed at our pleasure, in contact

with or at any distance from the first, depending upon the length of the bar, which is 25 cm., and at any possible angle with it by moving the bar on a pivot opposite the light A.

The jets having been lighted and turned down into two small flames about 5 mm. in diameter, the patient is placed 5 metres away and directed to observe the flames, and to say whether he sees them as small points of light, separated; or as diffused and enlarged circles which can be made to come in contact at their margins by sliding movements of the box on the bar by the hand of the surgeon; bearing in mind that an emmetropic; or a corrected ametropic eye will resolve the lights into two until they pass one behind the other and become fused, whilst in ametropia, the circles will seem to touch when a distance, depending upon the degree of ametropia, remains between the small light points. To determine the kind of ametropia, the patient is directed to pass slowly in front of the eye under examination, a slip of red glass in such a manner as to color half of the diffused circle, and if the red half seems to be on the same side with the red glass myopia is recognized, if on the opposite side, hypermetropia. This may be as well done by passing before the eye a piece of card in such manner as to exclude from sight one-half of the circle.

To determine the degree of ametropia, the bar has been divided on one side into spaces of 2.5 cm. with a half space between, and on the other, into English inches and half inches; and it will be found that each space of 2.5 cm. will indicate an ametropia of one dioptric metric system, and each inch  $\frac{1}{36}$  of the old system.

The cut represents the two flames as 2.5 cm. apart, and they would appear to a person having myopia or hypermetropia of 2 dioptrics or  $\frac{1}{36}$ , as two circles of light with their margins in contact at one point, separating on the removal of light B, and overlapping when it is placed nearer to A. For those who still prefer the old system to the metric it must be remembered that the old glasses are not based upon their exact powers of refraction, but are ground on radii of Paris inches, and that owing to the index of refraction of the glass commonly used, they by a happy chance correspond in focal length almost exactly with the English inch; hence, each inch of distance between the test lights as determined by the use of the inch scale on the bar will indicate an ametropia of nearly  $\frac{1}{36}$ , and the higher degrees can be found instantly by dividing 36 by the number of inches between the lights, when their margins seem to have come into contact.

When astigmatism is suspected, the patient should be directed to observe whether the flames are longer in one direction than the other, and if so, by the rotation of the bar on a pivot opposite to the light A, the two lights being placed at some distance apart, so that they do not appear to touch, we have one of the most accurate means of determining the meridians of greatest and least refraction, since it becomes easy for the patient to say precisely when two elongated points or ovals of light are so placed as to have the same direction, and when this has been fixed, the pointer F will indicate on the scale of the half-circle the exact angle at which the lights are placed.



On bringing the flames into contact at this angle, the real distance between the small lights will give us the amount of ametropia, and having thus found one meridian, the lights can be placed at right angles to it, and in this way the refraction of the second one can be ascertained. In difficult cases or with poor observers, it may be an aid both in simple myopia or hypermetropia and astigmatism to color one of the flames by holding a slip of red glass in front of it. Some experience in the connection of ametropia enables me to know how convenient it is to have more than one method of examination, and great care has been taken to perfect and simplify the method now proposed in the hope that it might take its place as a rapid and trustworthy means of diagnosis, and thus extend the benefits of a careful correction of ametropia.

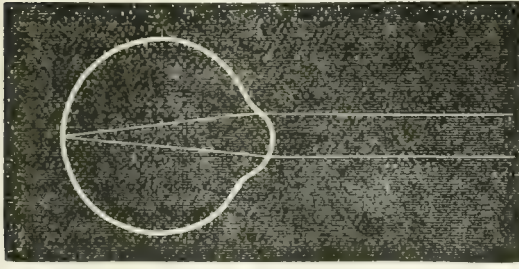
A distance of 5 m. between the patient and the instrument has been assumed, but others may be chosen; neither is it at all requisite to have so perfect an instrument, since examinations may be made with wax tapers or other small points of light, or they may be obtained from properly chosen reflecting surfaces.

To understand the method proposed and to make the best practical use of it, it must be remembered that an emmetropic eye, only when at rest can receive on the sensitive portions of its retina a perfect image of a small light point placed at or beyond 5 metres, and that it brings to a perfect focus on its retina only the rays of light that are parallel. If the retina is placed beyond this point, as in myopia, or within it, as in hypermetropia, a section of a cone of light must replace the point of light on the retina; and could the size of this circle of diffusion be measured clinically, the distance from the base of the cone to its apex could be calculated.

To estimate the size of this circle of diffusion, the law of *projection* has been invoked, and by the method proposed the dimensions of one are found by placing two circles on the observer's retina, choosing a fixed known distance between the patient and the test lights, and measuring the real distance apart of two lights when their diffused images touch on the patient's retina, and appear to be in contact in space in front of him. Clinically this can be done by the instrument, the theoretical reasons being as follows:

Since all calculations based upon the optical constants of the human eye composed of two complete but complicated dioptric systems are difficult to demonstrate, we have the highest authority for adopting for these purposes the well known simplified and reduced diagrammatic eye of Donders' consisting of but one curved surface of 5 mm. radius; a coefficient of a refraction of  $\frac{4}{3}$ ; a posterior focus of 20 mm., an anterior focus of 15 mm., since it is conceded that from these cardinal points we can trace by calculation any ray of light, ascertain conjugate foci, the size of retinal images, etc., with perfect confidence that the results would agree with those phenomena which occur under like circumstances in the human eye. As a result of clinical and theoretical study I propose another fixed quantity to be added to Donders' eye in the shape of 5 mm. diameter for its pupil, (see fig. 2.)



**Fig. 2.**

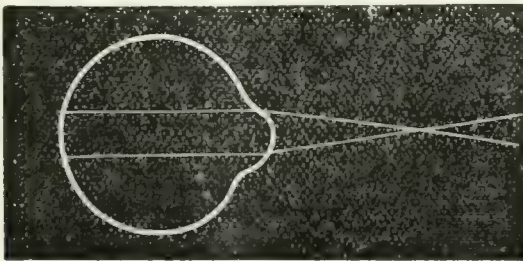
(Fig. 2, Donders' reduced eye with pencil of rays coming from distant point of light.)

Finding within Donders' eye a fixed quantity in the triangle of 20 mm. radius and 5 mm. sine, or arc, we are justified in choosing a second one outside of it for purposes of comparison and this is afforded by one of 5 m. radius with a sine of 1250 mm.

Could we regard the sides of the long beam of light as wires 5 m. long, passed through holes 5 mm. apart in a metal cornea and brought to an apex at 20 mm. from it, it would be evident that a separation anteriorly would put asunder the posterior ends and imitate a circle of retinal diffusion and that the wires would diverge and converge at a distance from the cornea dependent upon the separation anteriorly, hence a change in the sine of the large angle, must cause changes in both.

The apparent enlargement of a small distant point of light to an ametrope metaphorically resembles the separation of the two wires anteriorly to the eye, while the divergence of the points within the eye is like the circle of diffusion which falls on the ametropic retina. The direction of the anterior wires, whether they diverge from the cornea and, if continued back would meet behind the retina, or converge in front and cross at some point, gives us the direction of the rays of light in hypermetropia or myopia and hence the distance from the eye to such a point of junction, which will be the *punctum remotum*.

The convergence of the wires and their contact in crossing at a distance of 15 mm. the anterior focus of Donders' eye resembles a myopia of that degree and would render the rays within the eye parallel and separate the ends 5 mm., and would separate the anterior extremities 125 cm. (See Fig. 3.)

**Fig. 3.**

Assuming that a small light at a distance of 5 m. is properly focused upon the retina of Donders' eye, let us reason upon the results of a

condition of myopia artificially produced by a + glass giving a *punctum remotum* of 25 cm.; the image of the light would be a circle of diffusion which would diminish as the light was brought near and come to focus again when the light had approached to within a distance of 25 cm., or about ten inches. and the rays had become divergent.

We may reason that 250 mm. : the length of the induced radius of ametropia : 5 000 mm. : 5 mm. : 100 mm., or 20 cm., and that the circle would appear by projection to occupy a diameter of 10 cm. or 4th.

Now it will be observed that if an ametropia with *punctum remotum* of 25 cm. causes a circle of 10 cm., in like manner an ametropia of 100 cm., or 1 metre would cause a circle of 2.5 cm. and hence indicate an ametropia of precisely 1 dioptric.

Having demonstrated the probable diameter of a diffused circle as projected with an induced known ametropia—we can by reversing the process discover the very essence of ametropia, viz., the *punctum remotum* of a myopic, or hypermetropic eye, by ascertaining the diameter of the projected circle of diffusion at the fixed distance of the radius of the large angle, viz., 5 m.

Two lights now become essential and when the circles seem to touch, the distance between the lights gives us the size of either circle, and should the lights still be apart, 5 cm., for example, what then is the distance of the *punctum remotum*, and hence the degree of ametropia.

We shall then say as 50 mm. : 5 mm. :: 5000 mm. : x, and multiplying the second and third terms and dividing by the first we have 500 mm., showing ametropia to be equal to a glass of 2 dioptrics focal length, or  $\frac{1}{18}$ .

It is now evident that the method proposed enables us with ease to measure clinically the width, as it appears, of a circle of diffusion, and we have only then to remember the constants of Donders' eye, and multiply the radius of the large angle by the sine of the small one and divide by the diameter of the circle of diffusion and the result will be the *punctum remotum* of either hypermetropia or myopia, and from this, of course, arises the refraction, and the + or — glasses spherical, or cylindrical which will restore it to emmetropia.

The constants of Donders' eye are, in English inches, as follows :

Radius of curvature,	0.2' =	5mm.
Anterior focus,	0.6' =	15 "
Posterior "	0.8' =	20 "
Diameter pupil,	0.2' =	5 "
Distance,	200' =	5m.
Small angle within eye, radius,	0.8' sine,	0.2'
Large " " " "	200' "	50'

With either the metric or the English system the calculation for the glass required is too simple to need a table since 2.5 cm. or 1" will indicate either one dioptric, or  $\frac{1}{36}$ .

A single case will illustrate the process of reasoning. C. is found myopic and the lights are apart 5" when their margins touch. We then say 5" : 200", long radius, :: 0.2" arc of the small angle : radius



of the desired angle. Now multiply 200 by  $0.2 = 400$  and divide by  $5''$  and you have  $8''$  as the result and the *punctum remotum*, or an ametropic eye to be corrected by  $-\frac{1}{8}$ , or more accurately  $-1.7\frac{1}{2}$  placed  $\frac{1}{2}''$  in front of the cornea, which will render parallel the rays which diverge from a point  $8''$  away.

Since algebraical formulæ are sometimes passed over by the student or physician without due interpretation, I have entirely avoided them in this demonstration and reduced the process to the more familiar arithmetical law of proportion.

In using the reduced eye of the great Donders as the basis of my calculations I must pause to pay a new tribute to his vast genius and industry which have left so little for his followers to glean in the field of applied physiological optics which he has cultivated so well. But it is not the least interesting result of the numerous clinical observations made in the method now described that I can venture to propose to the distinguished author of the "Accommodation and Refraction of the Eye," a fixed quantity for the pupil of his reduced eye which so well represents the properties of the complicated human eye, but simplifies all of its optical problems in so wonderful a manner.

The practical value of my new instrument was clearly shown recently when I examined and corrected, with but little delay, four eyes in two persons, deaf mutes, which would have given endless trouble by the usual method.

## THE TREATMENT OF DIPHTHERIA.

BY

LOUIS WEIGERT, M.D. of Amsterdam, N. Y.

Last spring, I advocated in the GAZETTE a certain treatment of diphtheria, which had proven itself very valuable in my experience. But inasmuch as it was merely symptomatic, *i. e.*, empirical, and as furthermore many cases resisted all the means employed to deprive death of its victim, I determined to discard it and experiment with a drug which promised, theoretically, to be a specific.

To experiment, in private practice, in a disease so fatal, is perhaps objectionable, especially when it is taken into consideration that I had at my command remedies which had decreased the mortality to, at the most, 8 per cent., and would have been entirely unjustifiable had not the treatment referred to been a cruelty to the patients as well as nurses, and had not the epidemic steadily increased in fatality both in this country and in Europe.

But happily my results prove that it was not *an experiment* but rather the practical demonstration of a theoretical hypothesis.

Scientific treatment necessitates the administration of *means* directed to the *cause*. Diphtheria is a blood-disease, dependent upon the presence of bacteria. Could not these germs be destroyed by saturating the system with some parasiticide? The most universally effective of this class of drugs is mercury.

Such was my reasoning, which the first trial would prove either correct or fallacious, hence I present the first case as taken from my notebook :



R. S., aet. 3 years, Sept. 15th, 5 p. m. She complained last night of sore throat and headache, was restless and feverish. Temperature  $103^{\circ}$  in r. axilla, pulse, 140; tongue coated; diphtheritic odor strongly marked (this odor is present in every case of diph., even when there is no exudation, and is therefore pathognomonic of the disease); both tonsils well covered by membrane. Ordered cold applications to the neck, powders: calomel, et pulv. Dover, aa gr. j every hour; inhalation of the fumes of hydrargyr. oxid. nigr. gr. X every two hours.

Sept. 16th, 8 a. m., temp.  $99^{\circ}$ , pulse 112, exudation unchanged; ord. ol. ricini  $\bar{7}$  ss., after evacuation powders and inhalation as before; discontinue remedies during night.

Sept. 17th, 9 a. m., patient slept well, temp.  $98\frac{1}{2}$ , pulse 100, odor less perceptible; membrane has lost its leathery appearance and now resembles mucus. Ord. same as yesterday.

Sept. 18th, 9 a. m., patient bright, temp. and pulse normal, no odor, membrane almost entirely disappeared; ord. powders every two hours, inhalation every 4 hours.

Sept. 19th, 10 a. m., slept well, appetite fair, temp. and pulse normal, one small speck of membrane on left tonsil; ord. one powder every 4 hours, inhal. three times a day.

Sept. 20th, tongue clean, appetite good, throat clear, temp. and pulse normal; ord. one powder three times a day for two days.

Sept. 22nd, discharged patient.

A few more extracts from my records may not be inappropriate here.

Dec. 5th, 6 p. m., G. T., aet. 19 years. He complained since morning of headache, sore throat, and pains in his back and limbs. Temp. in l. axilla,  $107^{\circ}$ , pulse 160, tongue heavily coated, tonsils and soft palate covered with exudation, diphtheritic odor pervades the room. Ord. ol. ricini.  $\bar{5}$  j. after evacuation; powders of calomel gr. j; pulv. Opii. gr.  $\frac{1}{4}$ , one every hour; inhalation of hydrarg. oxid. nigr. gr. X every hour, inunction of hydrargyr. oleat. (10%) every hour.

Dec. 6th, 11 a. m., temp.  $100^{\circ}$ , pulse 95.

Dec. 9th, discharged patient.

Oct. 23rd, 3 p. m., I. W., aet.  $2\frac{1}{2}$  years, diphtheria. Temp.  $103^{\circ}$  in axilla. Ord. ol. ricini, after evacuation; calomel, etc. 9 p. m. He had vomited the oil, and as he had not had a passage from the bowels yet, they had not given any medicine. Temp. now  $105^{\circ}$ . Ord. lavement of water, soap, and castor oil, powders of cal., et pulv. Dover, aa gr ss, inhalations of black oxide of mercury. gr. vj. every hour, and inunctions of hydrargyr. oleat. Oct. 24th, 7 a. m. Temp.  $98\frac{1}{2}$ . Nov. 1st. discharged patient.

Dec. 11th, 8 p. m., C. K., aet.  $4\frac{1}{2}$  years. She has been hoarse since yesterday morning, was feverish and restless. Temp.  $104^{\circ}$  in axilla, pulse 150, countenance flushed and anxious, has marked dyspnoea, tongue coated, a few specks of membrane on tonsils, diphtheritic odor, larynx and trachea sensitive to the touch; ord. a clyster of water and ol. ricini; inhalation of black oxide of mercury gr. x every  $\frac{1}{2}$  hour; inhalation of steam as often as possible, cold applications to the neck, inunction of hydrargyr. oleat. (5%) every hour, powders of cal. et.

pulv. Dover. aa gr. j every hour. Dec. 12th, 8 a. m., voice clearer breathes with but little difficulty, temp.  $99\frac{1}{2}$ , pulse 100; ord. as yesterday. Dec. 13th, 9 a. m., voice and respiration natural, temp. 100, pulse 115, throat clear, no odor; countenance bright. Dec. 16th discharged patient.

Every patient, treated as above, recovered within one week, *i. e.* was then discharged by me. The disease was controlled after—at the most—24 hours; the exudation never continued after the constitution had been saturated with mercury; in every case the temperature fell to the normal ( $98\frac{1}{2}$ — $100^{\circ}$ ) after from twelve to twenty-four hours; (in some the temperature rose again to  $100$ — $101^{\circ}$  from gastritis or salivation); in no case did any kidney or other complication or sequella arise.

In diphtheria there is always a high degree of pyrexia ( $103$ — $107^{\circ}$ ); the membrane tends to spread; a pathognomonic odor invariably exists. Mercury is no febrifuge. As shown by the above cited cases the temperature was reduced as much as  $7^{\circ}$  within 17 hours, the exudation ceased and the odor disappeared. The logical conclusion to be deducted therefrom is that mercury destroys the diphtheria-bacteria, and that consequently it is entitled to be designated a *specific*.

In conclusion I would call attention to a few essential points. It is necessary to attain the physiological effect of the drug as rapidly as possible. The patient should be kept under its influence for 48 hours after all signs of the disorder have disappeared. The oleate of mercury shall be employed especially when gastric irritability exists. The bowels are to be thoroughly evacuated daily. The skin is to be kept perfectly clean. Free ventilation of the sick-room must be insisted upon. Stimulants are to be administered in case there is any symptom of depression.

I firmly believe and confidently assert that death from diphtheria need hereafter be but of rare occurrence, and therefore invite a severe but fair trial for this treatment.

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## HOSPITAL RECORDS.

### BELLEVUE HOSPITAL, NEW YORK.

Reported by E. HOCHHEIMER, M.D., House Surgeon.

#### LACERATION AND COMPRESSION OF BRAIN.

Bridget M. was arrested on the night before her admission to the hospital for drunkenness. At the time when she was taken to the station house she had marks of bruises about the head which, she stated, had been caused by a fall. In the morning she was found unconscious in her cell and transferred to the hospital.

On admission, she was in a state of profound coma; her breathing was stertorous, her muscles paralyzed, and it was impossible to arouse her. The left pupil was widely dilated, and failed to respond to light; the right one it was impossible to examine on account of the swelling of the lids, which were also ecchymosed, the tumefaction and ecchymosis involving in addition a considerable portion of the scalp above the right eye.



As the coma was becoming more and more intense, Dr. Hamilton determined to cut down to the bone at the apparent seat of injury over the right eye, with the further intention of trephining to give exit to extravasated blood, if a fracture were found. This was done but no fracture discovered, and the patient expired before anything further could be attempted.

At the autopsy, 24 hours after death, the abdominal and thoracic organs were all more or less congested, but otherwise normal. No fracture of the skull was to be discovered, but on removal of the dura-mater of the brain an immense extravasation of blood was found lying upon the entire right half of the cerebrum. The brain-substance was pale and cedematous, and the under and anterior portion of the right middle lobe of the cerebrum was lacerated.

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### PERISCOPE.

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TWO CASES OF POPLITEAL ANEURISM TREATED BY ESMARCH'S BANDAGE, PRESENTED TO THE CLINICAL SOCIETY OF LONDON BY MR. J. HUTCHINSON, AND DISCUSSED BY MESSRS. THOMAS SMITH, M. BAKER, MAUNDER, BARWELL, PAGE, BRYANT, MAHOMED, GOULD, NORTON AND HEATH.

The subject of the first case was a robust gentleman, aet. 26, who never had had syphilis. The tumor filled the right popliteal space and pulsated strongly. There had been pain for three months, but the pulsation had been recognized only a month. He had been placed under Mr. Hutchinson's care by Mr. Drew. He was admitted into the London Hospital, and after three days' rest in bed, ether was given, and Esmarch's bandage was applied to the entire limb. It was put on tight below the knee, very lightly over the tumor, and tightly again on the thigh. The elastic strap was applied as tightly as possible in the upper third, and after a little time the bandage was removed. The tumor was left full of blood, which was completely stagnated. Ether was kept up for an hour, and at the end of that time, the strap was removed and a horse-shoe tourniquet substituted. No pulsation ever returned in the tumor, but as a matter of precaution, the tourniquet was retained for a few hours. The subsequent recovery was rapid and complete.

The second case was less speedily successful. Its subject was a gunnery instructor from Shoeburyness, who had been treated by pressure for an aneurism in the calf two years previously. On that occasion success had been obtained by thirteen days' compression. The aneurism on the second occasion filled the popliteal space and was as large as a large orange. It pulsated strongly. Esmarch's bandage under ether was used for one hour in exactly the same way as in the previous case, but with no benefit. The tumor beat as before. Three days later, another trial was made of the same plan, but on this occasion arrangements had been made, by relays of students, to keep up digital pressure after removal of the constricting strap.



The man was kept under ether for two hours. At the end of that time, the strap was removed, and during the change of hands it became evident that pulsation was still present, but it was more easily controlled than before. Manual compression was kept up for about seven hours, at the end of which time pulsation had quite ceased. The tumor remained solid, and rapidly diminished in size, and the man left the hospital a few weeks later quite well. It was thought, that, in this case, although Esmarch's bandage did not produce consolidation, yet, it conduced to the cure, and, it was certain on neither occasion, did it do any harm. Mr. Hutchinson stated that he had brought forward these cases, in neither of which was there anything original in the treatment, in order to elicit from other surgeons statements of their experience and opinions in reference to this novel and important method. He wished to acknowledge his obligation to his colleague, Mr. Warren Tay, and his brother surgeons, Mr. Price and Mr. Bennett, for their assistance in carrying out the details.

Mr. Thomas Smith, by the use of Esmarch's bandage, applied as he had seen Mr. Croft apply it at St. Thomas's Hospital, had cured two cases, and had failed with two. He had lately had to do with one so treated. In this case, no chloroform was given, and the bandage was applied tightly above and below the tumor, and left in place. He considered this better than constricting the limb by the cord, a proceeding, which, on the continent had been followed by permanent paralysis from injury to nerves. The pressure was more diffused by the bandage. In the last case, which occurred to a member of the medical profession, the bandage was alternated with pressure by a tourniquet over the artery, and the treatment lasted from 9 A. M. to 6 P. M., at which time great pain was felt in the swelling, and coagulation probably took place. Pressure was kept on for an hour and a half after this, and the result was entirely successful.

Mr. Morratt Baker had had an unfavorable case in a man of 40 or 50, where some blood had escaped from the aneurism, which he had treated successfully. There had been a preliminary imperfect application, but at the final attempt, the bandage having been kept on for three-quarters of an hour, followed by half an hour's compression with the finger, it was reapplied for twenty minutes and compression again kept up for nearly two hours. No anæsthetic was employed, but no pain was complained of, and at the end of the time the aneurism was consolidated.

Mr. Maunder thought that there was no single certainly successful method of dealing with these cases. He had tried Dr. Reid's plan twice, both times unsuccessfully. One was cured by digital compression, and the other, by ligature. In his opinion, the objection to this bandage was that it was painful, and required an anæsthetic with its attendant risk.

Mr. Barwell agreed that no single method could be relied upon, but that the bandage was especially unsuitable in fusiform aneurisms. He had tried it in a bad case, where there was extensive arterial disease, with fusiform aneurisms in the axilla, and brachial arteries; he made use of a sort of a bridge to keep the bandage off the tumor,

and applied it lightly above the swelling, allowing a small current of blood to pass. After an hour and a half there was no result; it was subsequently reapplied twice, but he was obliged finally to ligature the artery, tying it gently in consequence of its diseased state. The man was well in ten days.

Mr. T. Smith objected that this method of applying the bandage, so as to allow the current of blood to continue, was essentially different from the plan under discussion.

Mr. Barwell added that on one occasion the flow was arrested for about one hour.

Mr. Herbert Page had tried the bandage without success in a case apparently well suited for it, and in the hospital, at the same time, a case of Mr. Lane's was treated in the same manner, with a like result. The plug in the distal arteries, which had been thought to precede clotting in the aneurism, was, in his opinion, a later event, and followed its cure. He alluded to a case of Mr. Pemberton's, where this method of treatment had been followed by gangrene.

Mr. Bryant related a case where the bandage had been used for an hour, under the influence of morphia, by which time there was much consolidation; in two or three days, the aneurism got worse, but the bandage under chloroform for three-quarters of an hour was followed by much improvement. It soon relapsed, and he then tied the artery; gangrene followed in a few days, which required amputation below the knee. In his opinion the bandage was responsible for the gangrene, and it constituted a serious, though perhaps not fatal objection to its use.

Dr. Mahomed considered the bandage was contra-indicated in cases of extensive arterial disease. He had found that when the bandage was placed on one arm the volume of the other was much increased, showing that a considerably increased distension of the vascular system resulted; where the cerebral arteries were diseased this might be dangerous, but this objection did not apply to the ligature.

Mr. Gould alluded to two cases of aneurism treated in this way which he had examined; in both, the clot in the aneurism was loose; that in the artery above and below, firm and fibrous. He considered the coagulation in the aneurism was secondary, and he thought Mr. Bryant's case bore out this view; here, the clot being soft was broken up by the stream, the arteries not being occluded, which lead to thrombosis and gangrene beyond; this difference in the clot, he attributed to the imperfect nutrition of the walls of the sac. He still thought those cases would be successful where the opening was large and the vessel healthy.

Mr. Norton had tried the bandage in one case without success. There was extensive vascular disease, with double aortic murmur and three aneurisms. The treatment, though it failed, had none of the disastrous results Dr. Mahomed predicted, though the case was just such a one as those referred to by Dr. Mahomed. He considered the risk due to the distension of the vessels as the result of compression, small indeed, when compared with the risk of ligature where general vascular disease existed.



Mr. Heath agreed with Mr. Barwell that a fusiform aneurism was not amenable to this treatment; and, with Mr. Gould in his theory of the action of this bandage. In Mr. Smith's case, however, the general state of the vessels was very unfavorable, yet a rapid cure resulted. It was quite possible in Mr. Bryant's case, the gangrene was the result of the ligature, and not of the bandage. In a patient of his, in whom the bandage had been twice applied, and in whom the artery had been ligatured, once in the usual way, and once with antiseptic precautions, the result was of interest. The patient was strongly in favor of the antiseptic plan, from which he had suffered much less pain.

Mr. Hutchinson, in reply to the various speakers, said that he had thought the plan of treatment under discussion a valuable addition to the means at our disposal. It seemed impossible to predicate as to the cases in which it was most likely to succeed, but it seemed to be a trial in nearly all. He could not admit that Mr. Bryant's case proved that any ill consequences were due to the bandage. It had simply not cured; the gangrene came only after the ligature, and should be attributed to it, and not to Esmarch. He believed that in different individuals very different degrees of aptitude for coagulation were displayed by the blood, hence, chiefly, the explanation why some cases were cured easily and others with difficulty. The tendency to coagulate might be helped by insisting on abstinence from fluids, as was done in both of his cases, and by giving drugs such as iodide of potassium, lead and digitalis. Whilst fully admitting the value of digital compression, he still thought a trial should first be given to the bandage. He had had several very rapid cures by compression, but he did not recollect any case of aneurism of similar size in which the patient had suffered less than the first of these he had related. If ether was used, not chloroform, he believed no danger was encountered, and he felt sure that the anæsthetic made the treatment less painful. He would strongly recommend that in all cases in which the bandage is tried, arrangements to continue digital compression immediately afterwards shall be made, and that great care should be taken to prevent the blood from passing into the tumor on the release of the limb from the strap.—*Med. Press.*

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#### THE NECESSITY OF CAUTION IN THE USE OF CHLOROFORM DURING LABOR.

*Trans. Amer. Gynecological Soc. (Amer. Jour. of Med. Sciences.)* Wm. T. Lusk, of New York, read a paper in which he expressed his belief that "not a small number of persons have quietly abandoned chloroform as a pain-stilling agent because some incident in their practice has led them to suspect that in spite of statistics, it possesses dangerous properties." The author divides his subject according to the following heads:

1. "*Deep Anæsthesia, carried to the point of complete abolition of consciousness, in some cases weakens uterine action, and sometimes suspends it altogether.*" By this effect we secure the required muscular relaxation where version is to be performed; but after turning, this very



condition should be regarded as a dangerous obstacle to the immediate removal of the fetus, the inertia of the uterus endangering hemorrhage; hence the importance of waiting the removal of action by diminution of anesthesia. We have especially noted this effect in many cases of labor under ether.

2. "*Chloroform, even given in the usual obstetrical fashion—namely, in small doses, during the pains only, and after the commencement of the second stage, may, in exceptional cases, so far weaken uterine action as to create a necessity for resorting to ergot or forceps.*" I think, if statistics were to be gathered together on this point, it would be found that those who habitually use chloroform in normal labor resort to forceps with somewhat increased frequency." An enquiry would no doubt also establish the fact that this adynamic effect in sulphuric ether in labor was the main cause of the large falling off in its use, the objection coming both from obstetrician and patient.

3. "*Patients in labor do not enjoy any absolute immunity from the pernicious effects of chloroform.*" It has been so strongly contended, particularly in Great Britain, that parturient women enjoyed a special immunity against the danger of chloroform, that this heading throws down the gauntlet to many of our trans-Atlantic medical brethren. Dr. Lusk, however, is ready to back up his opinion with cases, in proof of which he gives five, all the patients being free from cardiac or pulmonary complications.

4. "*Chloroform should not be given in the third stage of labor. The relative safety of chloroform in parturition ceases with the birth of the child.*" Dr. Lusk believes the use of chloroform dangerous in cases of hour-glass contraction, placental retention, and where the perinæum is to be sewed up, as the uterine relaxation induced favors hemorrhage. He advises against the use of anæsthetic in cases where there has been hemorrhage to any considerable extent, even if a day has intervened, the cerebral anæmia increasing very materially the risk.

5. "*The more remote influence of large doses of chloroform during labor, upon the puerperal state, is a subject that calls for further investigation and inquiry.*" When the system becomes, as it were, saturated with chloroform, to be removed by an eliminative process, the secondary depressive effect of the anæsthetic may endanger the life of the woman, especially if she has become anæmic by reason of post-partum hemorrhage.

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#### AN OPERATIVE MEASURE FOR THE ARREST OF COMMENCING PYÆMIA.

H. Kraussold, in the *Archiv. für Klin. Chir.*, Band XXVII, relates that a man, aged 29, had his leg broken through direct violence. The limb, which was swollen before the application of the bandage, continued to increase in size after its removal, so that after some months it measured about ten inches in circumference more than the other. All the symptoms indicated the pressure of a rapidly growing sarcoma; the limb was, therefore, amputated above the knee. There had been no pulsation or other sign of aneurism; but an examination revealed the presence of a large aneurismal communication between the posterior tibial artery and popliteal vein. Repeated attacks of

secondary hemorrhage from the femoral artery necessitated operative procedures, which could no longer be carried out under antiseptic precautions. The wound became foul ; and the patient had a rigor on the fourth day. The suspicion that suppuration had taken place in the veins was confirmed by the circumstance that, after removing the ligature and withdrawing a coagulum, a discolored fluid could be pressed out from the veins lying exposed in the wound. As the vein appeared to be intact in the neighborhood of Poupart's ligament—at least, there was no thrombosis nor tenderness on pressure at that part—it was laid bare ; and, after the application of a double ligature, a piece two or three centimetres (about an inch) long, lying between the ligatures, was excised. The femoral artery was also tied at the same spot. The operation, which was performed under antiseptic precautions a quarter of an hour after the occurrence of the rigor, was attended with the happiest results. There was no further rigor ; the amputation-wound soon became clean ; and healing was only somewhat retarded by suppuration along the sheath of the vessels. Herr Kraussold collects a few analogous cases from medical literature, and points out the circumstances under which a similar proceeding may be followed with probability of success in cases of purulent venous thrombosis. It is probably applicable only to the extremities, and requires an exact diagnosis. It is of course most certain, when the vein in the injured part can be exposed, and its conditions ascertained, as occurred in the present case. The earlier one operates, the greater are the chances of success ; if the thrombosis be already formed in the most central part to which a ligature can be applied, operation is useless.

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#### ALCOHOL AND PHTHISIS.

In some "stray remarks," Prof. Cleland publishes, in the *Glasgow Medical Journal*, opinions and speculations formed after a number of years in hospital work. Dr. Cleland has "been in the habit, for a number of years, of relying on alcohol in pneumonia, both croupous and catarrhal, as the most important of all remedies ;" and was led to the use of this remedy by the "known effect of alcoholic drinks in diminishing the carbonic acid excreted," and, therefore, in giving rest to the inflamed lung. In the treatment of phthisis, however, Dr. Cleland has found alcohol, in moderate doses of about four ounces a day, attended with bad results, the patients going from bad to worse the more rapidly the more alcohol they took. On omitting alcohol altogether from the treatment, however, the cases became more manageable. Hence Dr. Cleland was led to regard phthisis as a disease connected with diminished respiration. He regards the favorite seat of the disease, at the apex, as in favor of this hypothesis, but suggests that the point should be cleared up by experimental estimation of the excretion of carbonic acid in different stages of the disease. Prof. Cleland proceeds to offer some suggestions respecting the histology of phthisis, and proceeds to relate some interesting cases of phthisis secondary to other diseased conditions in which the rapid softening of caseous deposits led to pneumothorax. Prof. Cleland considers it an important practical problem at the present time to discover how far



lung disease is favored by deviations from the normal activity of the organ occasioned by systematic causes; and in what circumstances, if ever, it is to be attributed to purely local irritation.

#### HYSTERIA WITH COMPLETE ANURIA.

Dr. Vinet has published a very curious case of complete anuria in the *Nice Medical*. The patient, a lady aged 38, had always been subject to very singular paroxysms, which occurred regularly in the course of four or five days. Both digestion and circulation seemed much affected; the patient, however, did not grow any thinner, but only weaker from day to day; the slightest movement would cause such severe palpitation of the heart, that she could no longer stand upright. The only food which the patient could take was a small cup of coffee and milk; everything else was immediately rejected. Her weakness at last increased so much, that she was obliged to spend her days reclining on a chair, not being able to move. This wretched state lasted for two years and a half, then grew worse, while the hysteriform paroxysms were repeated more often than before; while they lasted, the patient was totally unconscious, and all her extremities more or less contracted. From this moment the vomitings increased and she could not take any food at all without throwing it up. But the most remarkable phenomenon during the latter part of the disease was, that both micturition and defæcation were entirely suspended from December 24th, 1877, to Feb. 22d of the following year. During this period of 58 days, the paroxysms were more frequent than ever before; several attempts were made to draw urine by means of the catheter, but the bladder was always found to be empty. A short interval of normal evacuations then took place, when the same state as before again set in, and lasted until May 4th.

#### INTRA-ARTICULAR INJECTIONS.

Prof. Peterson (*Centralblat. f. Chir.*) after many experiments, appreciates the injection of carbolic acid as an important addition to our therapy of diseases of the joints, although in some instances they were not followed by any benefit nor did they even always suffice to check the progress of the disease. Of his successful cases he reports the following:

1. An inflammation of the elbow-joint of three months standing unsuccessfully treated with immovable dressings and ice applications. About 15 m. of a 20 per cent. solution of carbolic acid were injected into the joint every other day. They were always followed by severe pain. After four weeks a peri-articular abscess developed, which, after cicatrizing, left the joint in excellent condition.

2. A girl of 17 had been suffering during four years from an arthritis of the wrist, evidenced by great swelling and sensitiveness and severe pain on motion. Injections were made as in the first case and were followed by a marked improvement after several days. The sensitiveness disappeared, the swelling was reduced, and after five months the utility of the joint was almost completely restored.

3. The impunity with which the intra-articular injections can be



practised is illustrated by a case of synovitis of the ankle, in which a fistula had already formed. During a successful treatment extending over three months, the patient walked to or from school immediately after receiving the injection into the joint.

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## NEWS ITEMS AND NOTES.

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**Corpus Luteum.**—In an elaborate article on the corpus luteum illustrated by chromo-lithographs, in the second volume of the *Gynaecological Transactions*, Boston, Dr. J. C. Dalton gives the weights of the corpora lutea in eight cases observed soon after menstruation, viz. : two days after, 380 millegrammes ; nine days, 430 ; ten days, 810 ; fifteen to twenty days, 1230 ; twenty days, 1200 ; six weeks, 90 ; ten weeks, 20 ; and eleven weeks, 15 millegrammes. One case deserves especial notice, as an evidence that menstruation may take place without the rupture of Graafian follicles or formation of corpora lutea. The subject was a young epileptic girl who died after sixteen hours' illness, eight days after a moderate menstrual flow, verified by a personal inspection of the nurse in the hospital, where she had menstruated at regular intervals on two former occasions. The ovaries were normal in size and appearance, the right showing an enlarged and prominent follicle, with a transparent covering, as if approaching menstrual maturity. In neither ovary were there any of the usual physiological changes that follow the menstrual period. Dr. Dalton expresses the opinion that the coincidental ovarian development was about to commence shortly in this case, and that the same want of coincidental action between the flow and follicle may occur at the closing of menstrual life.

**The Art of Hanging.**—Professor Hoffman has published an essay containing the results of his researches on the immediate cause of death by hanging, of which the *Journal de Médecine* gives a short abstract. In hanging, the noose does not press directly on the larynx and the trachea, but almost always slips between the larynx and the chin. In these cases, the basis of the tongue is pushed upwards and pressed against the posterior wall of the pharynx, completely closing it. The truth of this assertion can easily be proved by making sections of frozen bodies of persons who have been hung. The most important agent, however, in this kind of death, is the compression of the larger vessels and the cervical portion of the vagus nerve; the upper portion of the carotid being pressed against the transverse processes of the cervical vertebræ before it branches off into the external and internal carotids, and the inner coat of the vessel being ruptured. The jugular veins are compressed at the same time; and the brain can neither receive any more blood, nor allow that which it already contains to flow away; its irritability is, therefore, extinct. The very important part which both the vagus and the vessels take in causing death by hanging is clearly shown through the following observations:

I. Loss of consciousness following immediately the compression

caused by the rope at the moment when the noose is drawn tight by the weight of the body. The truth of this assertion is proved by the fact that no person who commits suicide by hanging, ever attempts to rid himself of the rope which throttles him, although he might do so easily by standing upright, as the body is not always suspended above the surface of the ground.

II. The rapidity with which death ensues and the beating of the heart stops. The few struggling respirations which generally occur in apnoea shortly before death have not been observed in persons who have been hung. It is also well known, how difficult it is to restore such patients to life. It is clearly seen from the above mentioned facts, that death occasioned by hanging cannot be explained simply by obstruction of the respiratory tracts, but that, on the contrary, the compression of the nerves and vessels of the neck is the principal agent.

All these facts, however, apply not only to hanging, but to all methods of strangulation. It has also been proved that it is possible to commit suicide with both hands on the side of the neck for a sufficiently long time, and it is well known that in this way, the pulsations of the heart have been stopped, and consciousness lost.

**Bony Union in Fractured Patella.**—Mr. W. I. Wheeler exhibited at the Pathological Society of Dublin, a specimen of fracture of the patella, in which true bony union had taken place. The patient was a man aged 21 years, driver of a milk-cart. In September, 1875, he had been admitted to the City of Dublin Hospital, suffering from a transverse fracture of the patella; the fragments of bone were separated by an interval of 2½ inches. He was treated by the application of Mr. Wheeler's pads, and a starched bandage. When he left the hospital, on Dec. 13, there was no separation between the fragments. He subsequently resumed his occupation, and got up and down over the wheel of a milk-cart about two hundred and forty times a week. Symptoms of phthisis set in, and finally he succumbed to that disease. During life, there was no perceptible diminution in the volume of the quadriceps muscle, the movements of the patella were not impaired, and there were no spasms of the quadriceps.—*Br. Med. Jour.*

**On Opening the Abdomen to Relieve Intestinal Obstruction.**—In a discussion on this subject, Mr. Teale, an eminent London surgeon, said: "I must confess to having myself a strong bearing towards the operation, on the grounds both of theory and experience. I have six times opened the abdomen in apparently hopeless cases of obstruction of the bowels, and I do not consider that in any one of them the chance of recovery was taken away by the operation. The operation is justified on two cardinal grounds: 1. "That the simple opening of the peritoneal cavity, in order to search for the cause of obstruction, is not of itself a dangerous operation.

2. "That there are many cases of obstruction of the bowels which must prove fatal, unless relief can be given, which can only be rightly directed by means of exploration of the abdominal cavity. As to the harmlessness of opening the peritoneal cavity, I need hardly remind you how constantly this is done in operations for hernia."

# THE HOSPITAL GAZETTE

AND

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EDITED BY

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## LECTURES.

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THE DISPLACEMENTS OF THE FRAGMENTS OF THE  
BROKEN FEMUR,—ESPECIALLY THE ROTARY AND  
LONGITUDINAL. A DESCRIPTION OF FOUR SPECI-  
MENS OF UNITED FRAGMENTS AND THREE CASES  
OF FRACTURE OF THE FEMUR.

BY

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[Reported for THE HOSPITAL GAZETTE.]

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GENTLEMEN :—When the surgeon is called to treat a fracture of the shaft of the femur, he may ask himself the following questions, namely:

(1) How can I remove this deformity? (2) How can I prevent the deformity that I can remove from returning? (3) How much deformity will there be left after I have exhausted all the resources of my art? And the surgeon asks these questions for the following reasons:

1. He has a humane desire to do as much as he can to restore an injured fellow creature to his normal condition.

2. He may have a laudable desire to do as much good work as he can, in order that he may create or maintain for himself an excellent surgical reputation.

3. He may be impressed with the necessity of treating his case in the best manner, in order that he may escape the legal penalties of malpractice.

In the meantime, let me enumerate the four displacements of the



fragments of bone that may take place in a fracture of the shaft of the femur:

FIRST.—*Lateral displacement*.—In this case, the fragments of bone are out of place from side to side in any direction transverse to the long axis of the shaft of the femur.

SECOND.—*Angular displacement*.—In this case, the fragments of bone are out of place so as to make an angle with each other at the seat of the fracture.

THIRD.—*Rotary displacement*.—In this case, one fragment is in-rotated or outrotated more than the other fragment.

FOURTH.—*Longitudinal displacement*.—In this case, the fragments over-ride each other, so as to shorten the femur.

Now our first object is to determine the causes of these displacements, as far as we can. And our second object is to remove these displacements, as nearly as possible. In order to attain these two objects, we must observe the facts of anatomy and the facts of accidents.

Here are four femora that have been broken, and have united with more or less *lateral, angular, rotary* and *longitudinal displacements*. Let us examine and measure these broken femora, and make use of the lesson that they will give us. We must remember that these four specimens will give us only part of the truth.

*Specimen No. 1*.—This is the right femur, and it was broken in the middle. The lower end of the upper fragment is displaced outward from the upper end of the lower fragment about one inch, and the intervening space is bridged over by new bone. Counting the thickness of the bone, the *lateral* displacement was about one inch and a half. You will see that this normal right femur arches forward and inward. The specimen has lost the forward arch, and presents a remarkable external *angular* displacement. The angle is on the inside of the bone, and measures about 160 degrees. Now observe this normal femur; when the two condyles and the trochanter major rest on a plane surface, the head of the bone will rise some distance above the plane surface, so that the axis of the neck of the femur and a line in the plane surface will include an angle of about 25 degrees. I have measured twenty-five normal femora in this manner, and find that the axis of the neck and a line in the plane surface on which the condyles and trochanter major rest will include a greater or smaller angle; in some instances the angle is very small, and in some instances the angle is even greater than 25 degrees. In no normal bone did the condyles and the head rest on the plane surface, leaving the trochanter major at a distance above it. Then observe this abnormal femur; when the two condyles and the head are on this plane surface, the trochanter major will be at some distance above this surface. The axis of the neck of this abnormal femur and a line in this plane surface will include an angle of about 30 degrees. Hence, if this abnormal femur was originally like this normal femur, the fragments have a *rotary* displacement of over 50 degrees. And this means, that the one who owned this abnormal femur, walked with the inner side of his right foot forward, when the upper end of

his femur was in a normal position. Under any circumstances the *rotary* displacement in this case was as much as 25 degrees. It is to be borne in mind that this specimen has outrotation of the lower fragment and inrotation of the upper fragment. In fine, this was an oblique fracture, and if we allow for the obliquity, the *longitudinal* displacement cannot be far from one-half of an inch. This is less than the average shortening after fracture of the femur.

*Specimen No. II.*—This is the right femur, and it was broken at the junction of the middle and lower thirds. The *lateral* displacement is equal to the diameter of the shaft of the bone, which is about one inch. The lower end of the upper fragment is displaced backward and inward, its surface resting on the surface of the upper end of the lower fragment. The *angular* displacement of the fragments of this specimen is very slight, and of no very great practical importance, unless we consider the backward displacement of the lower end of the upper fragment in connection with the rotary displacement. For if we put the lower fragment in such a position as to have the foot pointing forward, there will then be some backward angular displacement. The *rotary* displacement is shown as before by putting the specimen on a plane surface. When the two condyles and the head of the bone rest on a plane surface, the axis of the neck and a line in the plane surface include an angle of about 55 degrees, the trochanter major rising higher from the plane surface than in the previous specimen. And if the angle of 25 degrees in the normal bone above measured be rejected, as in some femora there is no such angle, the rotary displacement would even then be over 50 degrees; but if we count in this angle, then the rotary displacement of this specimen would be about 75 degrees. This is certainly an extraordinary displacement, and seems to be one of those unfortunate cases that have been treated with the foot, the leg and the lower fragment of the femur resting on the outside. The upper fragment is inrotated, and the lower fragment is outrotated. The fracture was oblique from below upward and inward. The length of the obliquity was about two inches. The entire over-riding was about four inches. The *longitudinal* displacement is therefore about two inches. In this specimen the longitudinal displacement is nearly three times the average.

*Specimen No. III.*—This is the left femur, and it was broken so that the lower fragment was about one inch longer than the upper fragment. The ends of the fragments are so covered by callus that one cannot say if the fracture was oblique or transverse. There is *lateral* displacement of about one and one-half inches including the diameter of the bone and the callus; the lower end of the upper fragment being forward and inward, and the upper end of the lower fragment being backward and not so far inward as the upper fragment. The *angular* displacement is inward, and the fragments include an angle of about 165 degrees. The *rotary* displacement is about 40 degrees; but if we compare it with this normal femur it is about 65 degrees. The lower fragment is outrotated, and the upper fragment is inrotated. See the two condyles and the head



of the bone rest on this plane surface, leaving the trochanter major at some distance from it. The *longitudinal* displacement you will observe as I measure it, including the obliquity is about three inches. It is probable that there was an obliquity in this case of one and one-half inches. If so, the longitudinal displacement would have been about twice the estimated average.

Fig. 1.

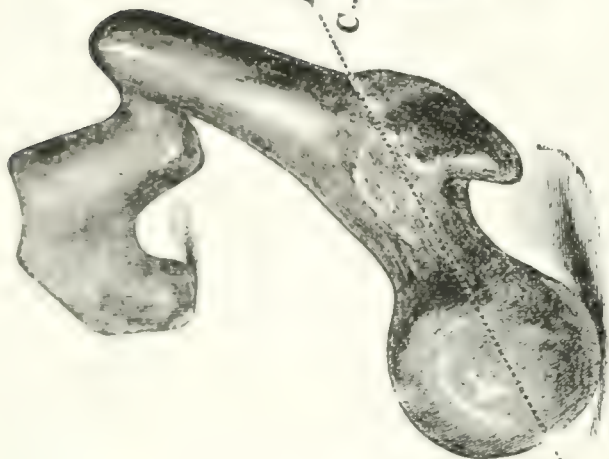


Fig. 2.



Fig. 1, represents the first specimen of fracture of the femur described in the text. Fig. 2, represents the normal femur used for comparison with the four specimens described in the text. These two figures were photographed, engraved, and electrotyped with great care, so as to give an exact representation of the facts. The condyles of the normal and pathological specimens rest on a plane surface: The head of the normal specimen is above this surface, as indicated by the angle C D B: The trochanter of the pathological specimen is above this surface, as indicated by the angle A B D:—Thus showing the outrotation of the lower fragment and the introtation of the upper fragment of the broken femur.



*Specimen No. IV.* This is the left femur, and it was broken at the junction of the upper and middle thirds. The *lateral* displacement, including the diameter of the bone, is about one and one-half inches; the lower end of the upper fragment being forward and outward, and the upper end of the lower fragment being more outward and forward than the lower end of the upper fragment. The upper fragment is behind the lower fragment. The *angular* displacement is forward and a little outward. It is greater than the anterior arch of the normal femur. The *rotary* displacement is about 40 degrees, as near as it can be estimated from the supra-condyloid portion of the shaft, the external condyle being absent. And if this specimen was originally similar in form to this normal femur, the rotary displacement would be at least 60 degrees. The *longitudinal* displacement including the obliquity of the fracture was about five inches. The length of the obliquity of the fracture appears to have been about three inches. This leaves the longitudinal displacement about two inches. And this is over twice as great as the average shortening of the femur after fracture. The callus is quite abundant.

Let me now draw your attention to the following points :

1. These specimens exhibit marked deformity after fracture of the femur.
2. The *lateral* displacement could, however, not be much less, when there is over-riding and *longitudinal* displacement.
3. The *angular* displacement is marked in the first specimen; in the rest it is an average displacement.
4. The *rotary* displacement in the four specimens is very great. The upper fragments are all inrotated, while the lower fragments are outrotated.
5. The *longitudinal* displacement in the four specimens is greater than the average after treatment of fracture of the femur.

In the next place, there are in a general way some points to be considered in regard to the causes of the four displacements of the two fragments of the broken femur.

I. The *lateral* displacement is caused by : 1. The energy and the direction of the breaking force, acting more on one fragment than on the other. 2. The over-riding of the broken ends of the fragments, especially in case of obliquity of fracture. 3. The various lateral components of the energy of the contracting muscles.

II. The *angular* displacement is caused by : 1. The energy and the direction of the breaking force, acting on the broken ends of the fragments about equally : 2. Some of the lateral components of the energy of the contracting muscles. 3. The shortening of the thigh by the longitudinal contraction of the muscles—when there is none or partial lateral displacement.

III. The *rotary* displacement is caused by : 1. The leg and the lower fragment falling and rolling outward under the action of gravity : 2. The outrotating components of contracting muscles, acting on the lower fragment and the leg, especially the sartorius, the biceps femoris, and that part of the adductors attached to the lower frag-

ment. 3. The possible preponderance of the inrotators over the outrotators acting on the upper fragment.

IV. The *longitudinal* displacement is caused by : 1. The contraction of the muscles in the direction of the long axis of the bone. 2. The effusion of blood, which tends to expand the tissues laterally and shorten them longitudinally.

Thus far we have been considering accidental causes. It now remains for us to consider some of the causes operating during the treatment of the fracture.

I. The stress of muscular contraction is resisted by the bones, and when the ordinary resistance from the bone is removed, as in a case of fracture, the muscles will contract and become in time organically shorter. This condition may be called *contracture*. And it is often a cause in the shortening of a broken femur.

II. It is a well recognized law of scar-tissue, that it will contract during its formation. The new formation in the case of a broken femur will tend to make the bone shorter during treatment.

III. In the next place, there are three important dynamic conditions to be considered, namely,

(1.) The lower fragment and the leg will tend to outrotate for two reasons : 1. The foot and the leg will tend to turn on the outer side on account of the action of gravity under certain circumstances. 2. Extension of the leg and the lower fragment will pull on the muscles of the thigh, and there will be a pull especially on the sartorius, the biceps femoris, and on that part of the adductors attached to the lower fragment. In few words, the pull on the sartorius and the biceps femoris will outrotate the leg and the lower fragment ; and the pull on the part of the adductors attached to the lower fragment will outrotate the lower fragment and the leg ; and this outrotation will continue till there is equilibrium between the outrotators and the inrotators that act directly and indirectly on the leg and the lower fragment.

2. The upper fragment may tend to inrotate on account of muscular contraction. 1. Traction on the leg by the extending apparatus pulls on the quadriceps femoris. The rectus femoris is made tense, and so the vasti muscles by their attachment to the upper fragment—especially that part of the external vastus attached to the anterior part of the trochanter major—will pull the shaft of the upper fragment forward and inward, and this will be inrotation. 2. This kind of traction on the upper fragment will also pull on the two great flexors of the thigh, the psoas and iliacus, and these muscles will inrotate, or tend to inrotate, the upper fragment. Let me allude to the fact, that these two muscles will outrotate the shaft of the femur, when the *neck* of the femur is broken. 3. Under the circumstances thus far described, extension will tend to cause rotary displacement of the two fragments of a broken femur ; and inrotation of the upper fragment and outrotation of the lower fragment will tend to make the lower limb *longer* after fracture of the femur. On the other hand, if by any means we make the rotary displacement less, we may thereby make the longitudinal displacement more. In other words we may make a broken thigh bone longer by the rotary displacement of the



fragments ; and we will be apt to make the same broken bone a little shorter by removing the rotary displacement of the fragments. In certain cases of broken femur, it is a choice between two displacements—which will we have the most of—twisting, or shortening?

I was greatly surprised and puzzled when these specimens first came under my observation. I did not know but the fractures might have been treated with the foot, the leg and the lower fragment resting on the outside. I know that fractures of the femur have been treated in this manner. But yet the cases from which these specimens came were not all so treated. It is indeed a question if any of them were so treated. There is no direct evidence on this point. There is simply an excess of inrotation of the upper fragment from some cause. For if the outrotators acting on the upper fragment had a preponderating influence, this fragment would have been outrotated, and would have united with the upper fragment, leaving less *rotary* displacement. I do not say that outrotation of the upper fragment does not sometimes exist, for I have seen such a condition in clinical cases and in specimens of united bones—I am now speaking of inrotation of the upper fragment of a broken femur, and trying to find adequate causes for such a result. And in this place, a third dynamic condition may be noted, namely,

(3.) The long outside-splint used in treating fractures of the femur may aid in pushing the trochanter major forward and inward, that is, inrotating the upper fragment. Since I have seen these specimens brought before you to-day and have tried to decipher their practical meaning, I have more than once noticed the inrotating power of the long side-splint, and tried, so far as I could, to prevent any deformity that it might tend to cause. And let me tell you in passing, that I have seen the long side-splint pushing the trochanter major backward toward the tuberosity of the ischium. But generally I have observed the trochanter major of a broken femur tending to move forward and inward. And at the same time I have observed the foot, the leg, and the lower fragment tending to roll out. And so we are met step by step by our lack of knowledge—we are more or less empirics ; we are met by invisible blind factors that have the natural right to move the normal bones, and that will continue to work after the bone is broken, opposing our best directed efforts in helping the bone to repair its injury ; and our best art from time to time obstructs its own laudable efforts to attain perfect success.

Gentlemen, when I look on these dry and cracked bones, and compare them with this normal bone, I cannot refrain from a few reflections :

1. The changes in these repaired bones are very considerable ; they have angles, twists, and overlaps. And if men could walk about with naked thigh bones, what a commentary on the surgical art would these specimens have been for everybody to read ! The clothing and the flesh do kindly cover our necessarily imperfect work.

2. Perhaps this work was done by clear heads, sound judgments and skilful hands. Who knows but that each one of these results is a masterpiece of surgical art ? It may be that the surgeon under other



circumstances obtained far better results. And it may be, that the patients who owned these deformed bones were thankful to the surgeons who treated them, and who gave them all that they had to give. And it is proper to presume that, after recovery, they did not turn against their best friend, and rend and ruin him under the shadow of the justice of his country. Ah! they have done better than this—they have generously left their bones for you and me—and all who will—to read the lesson of the *fallibility* of human science and human art.

3. Will you ask us to do better work than is done by nature—who has been trying her hand for numberless years, and yet gives us a symmetry in two cases out of three? Must we make the bones of the two sides alike, when nature did not so make them? And must we perform a more impossible task than this—by giving our patient a bone of the same form and symmetry that it had before it was broken? Much is asked, when there is comparatively little to give. And if any surgeon claims to be the possessor of great skill and perfect art—if he claims that he can put the bone-pieces back as they were before injury and fracture, let him consider that he may be deceiving the public and may be himself:—does he not erect an impossible standard that nobody can reach, and to which everybody is held responsible for attaining?

The question that comes up now is this: What can we do to remove and prevent deformity after fracture of the shaft of the femur? Let me give you a brief description of some cases of fracture of the femur, in order that the principles of treatment may be illustrated:

CASE I. C. J. T., a seaman, born in Norway, and 38 years of age, fell about fifteen feet on his right side, and was conveyed to the hospital by the ambulance surgeon on the 25th March, 1878. This patient presented the following signs of fracture of the shaft of the right femur: The foot, the leg, and the condyloid end of the femur were outrotated; there was a fusiform swelling at the middle part of the thigh; the trochanter major was inrotated; the leg and condyloid end of the femur could be rotated without rotating the upper end of the femur; there was angular displacement; and there was no crepitus. The following measurements were made, namely,

1. The right tibia—15 inches.

2. The left tibia—14 $\frac{3}{8}$  inches.

The difference was  $\frac{1}{8}$  of an inch in favor of the right tibia.

3. The right lower limb—34 inches.

4. The left lower limb—32 $\frac{1}{2}$  inches.

The difference was 1 $\frac{1}{2}$  inches in favor of the right lower limb. Hence the right femur was about one inch longer than the left femur.

This patient fell, when he was six years of age, and broke his left thigh about the middle, at which time some pieces of bone came out. This fracture must have been the cause of the shortening of the left femur, and the accident may have been the indirect cause of the left tibia being shorter than the right. The left lower limb being so much shorter than the right, a moderate extending force was sufficient to put the right lower limb in good position; this force was equal only to eight pounds. After this amount of extension the right lower limb

was about two inches longer than the left lower limb. In this case it was with some difficulty that the leg and the lower fragment could be kept from too much outrotation. In this respect daily attention was necessary. The upper fragment tended to inrotation and flexion. The tendency to flexion of the upper fragment was completely overcome by a four-pound sand bag placed on the anterior and upper surface of the thigh. And I found that the sand bag by being kept over the trochanter major effectually prevented the inrotation of the upper fragment. After the treatment I have reason to believe that there was but very little *rotary* displacement of the united fragments. But I am quite sure that there was considerable *longitudinal* displacement; **how** much there was no way to determine. In fact, I did not try to make a long limb—and would have been satisfied with the result, if the right limb had become as short as the left.

CASE II. O. Olsen, a seaman, born in Norway, and 22 years of age, had a barrel whose contents were unknown, fall on his left thigh, breaking the femur at the junction of the lower and middle thirds. He came into the hospital on the 20th of April, 1878, when on examination he presented the following signs: The foot, the leg, and the lower fragment of the femur were outrotated; there was a fusiform swelling around the seat of fracture; the upper fragment was inrotated—as shown by the trochanter major; the upper fragment was flexed; there was angular displacement; there was no crepitus; and the leg and lower fragment could be rotated without rotating the upper fragment. This independent rotation of the lower and upper ends of the femur is a most important and conclusive sign of fracture of the shaft of the femur. In this case, the following measurements were made, namely,

1. The right lower limb from the superior anterior spine of the ilium to the external malleolus— $37\frac{1}{8}$  inches.

2. The left lower limb from the superior anterior spine of the ilium to the external malleolus— $35\frac{1}{2}$  inches.

The difference was  $1\frac{5}{8}$  inches in favor of the right lower limb.

3. The right lower limb from the superior anterior spine of the ilium to the internal malleolus— $36\frac{1}{2}$  inches.

4. The left lower limb from the superior anterior spine of the ilium to the internal malleolus— $34\frac{1}{2}$  inches.

The difference was 2 inches in favor of the right lower limb. And the difference of the two sets of differences was  $\frac{3}{8}$  of an inch in favor of the inside measurement.

(5) The right leg from the knee-joint to the end of the external malleolus = 17 inches.

(6) The left leg from the knee-joint to the end of the external malleolus =  $16\frac{3}{4}$  inches. The legs were not measured on the inside on account of the swelling of the inside of the left lower limb at the knee-joint. In this case the extending weight was twelve pounds, whose traction constantly tended to outrotate the leg and lower fragment. This outrotation was obviated by constant attention—keeping the leg and the lower fragment as far as possible properly fastened to the long side splint, which had a firm cross-piece at the foot to pre-



vent it from turning. A sand bag laid on this cross-piece may be of considerable service in preventing rotation. A four-pound sand bag was put on the thigh over the upper fragment in order to obviate flexion and inrotation. From day to day the hand was put between the side splint and the hip, in order to find out if the trochanter major was in the right place; and if the trochanter major had come too far forward, it was pushed backward until the upper fragment seemed to be about mid-rotation. The constant action of gravity is a most effectual means of overcoming muscular contraction. My results have been better since I have used the sand bag in the way and for the purpose above described. In this case (after treatment) the right lower limb was about one inch longer than the left lower limb. As the right leg was  $\frac{1}{4}$  of an inch longer than the left leg; and as we may infer that the right femur before fracture was  $\frac{1}{4}$  of an inch longer than the left femur, we may conclude, that the actual shortening was not more than  $\frac{1}{2}$  of an inch; this is less than the average. The rotary displacement, so far as could be determined, was a minimum. The patient, when he left the hospital had no perceptible limp.

CASE III.—J. W., a laborer, born in Germany, 38 years of age, had a bale of cotton fall on his right thigh, breaking the femur near the middle, and was brought to hospital in the ambulance, on the 5th of June, 1878, when the following points were presented:

The right foot and leg and the condyloid end of the right femur were outrotated; there was a fusiform swelling of the soft parts about the seat of the fracture; the trochanteric end of the femur was in-rotated—as could be easily determined by the position of the trochanter major; the upper fragment was somewhat flexed; and the leg and the lower fragment could be rotated without rotation of the upper fragment. The following measurements were made, namely:

- (1) The right tibia on the inside =  $15\frac{3}{4}$  inches.
- (2) The left tibia on the inside =  $15\frac{3}{4}$  inches. No difference was found in the length of the two legs.
- (3) The right thigh from the superior anterior spine of the ilium to the knee-joint =  $19\frac{3}{4}$  inches.
- (4) The left thigh from the superior anterior spine of the ilium to the knee-joint =  $21\frac{3}{8}$  inches. The difference in favor of the left thigh was  $1\frac{5}{8}$  inches.
- (5) The right femur from the top of the trochanter major to the knee-joint =  $17\frac{3}{4}$  inches.
- (6) The left femur from the top of the trochanter major to the knee-joint = 19 inches. The difference in favor of the left femur was  $1\frac{3}{8}$  inches. And the difference of the two differences was  $\frac{3}{8}$  of an inch. The equal lengths of the two legs; the unequal lengths of the thighs; the fusiform swelling of the soft parts of the thigh; and the independent rotation of the upper and lower ends of the femur, constituted very conclusive evidence of a fracture of the femur. The extending weight used in this case was 12 pounds. At first a six-pound sand bag was put on the upper fragment; this was soon removed, and a four-pound sand bag put in its place; subsequently a



two-pound sand bag obviated the flexion and the inrotation of the upper fragment. The rotary displacement after union, so far as could be determined, was not very great. Particular attention was given to obtaining union with the rotary and longitudinal displacements as small as possible. An effort was made to prevent the extension from interfering with the removal of the rotary displacement. The shortening of the right lower limb by the usual measurements from the superior anterior spine of the ilium was about  $\frac{1}{2}$  of an inch:—by measuring from the tops of the great trochanters it was about  $\frac{1}{4}$  of an inch. Hence, the probable shortening was not far from  $\frac{1}{4}$  of an inch.

In this connection, let me draw your attention to the following facts, namely:

1. Surgeons generally do not have so much shortening in the lower limb after treatment of fracture of the femur in the young, as they do after treatment of fracture of the femur in adults.

2. The resistance to extension of the muscles and fasciæ of the thigh of the young is to the resistance to extension of the muscles and fasciæ of the thigh of the adult as the weight of the young body is to the weight of the adult body. This is a fact approximately true. The adult muscles and fasciæ would probably be proportionally stronger than the young muscles and fasciæ.

3. Use an extending weight of eight pounds for a boy, who weighs fifty pounds, and the above proportion would give an extending weight of twenty-four pounds for an adult, who weighs one hundred and fifty pounds; and for an adult weighing two hundred pounds, the extending weight would be thirty-two pounds.

4. If twenty-five pounds of extending weight be too much for an adult, would not eight pounds of extending weight be too much for a boy weighing fifty pounds?

Finally, let me make the following remarks on the displacements of united fragments of the broken femur:—

1. One-fourth of an inch shortening of the lower limb after treatment of fracture of the femur may be considered a very perfect result—because the normal difference in length of the lower limbs is on the average as much as one-fourth of an inch.

2. Three-fourths of an inch shortening of the lower limb after treatment of fracture of the femur may be considered a good practical result—because the accidental difference in length of the lower limbs is on the average as much as three-fourths of an inch.

3. A greater than the average accidental shortening of the lower limb may be due to a-symmetry of development, severity of injury, and an attempt to obviate and prevent the rotary displacement.

4. In treating a fracture of the shaft of the femur a maximum length of the lower limb may be obtained, when there is a maximum rotary displacement of the fragments.

5. Hence, a minimum rotary displacement of the united fragments of the broken shaft of the femur will tend to shorten the lower limb.

6. It would not be sound surgical practice to overlook one kind of

displacement, and confine attention entirely to another kind of displacement, thereby permitting a great deformity to remain, as an obstruction to the use of the limb.

7 To our attention are brought in this matter three important practical things, namely:

(1) The long side splint, which may be used to obviate the out-rotation of the lower fragment, and which should not interfere with the proper position of the upper fragment. (2) The extending weight, which should be adequate for each case in which it is applied, but not so great as to interfere with union, or cause excessive rotary displacement of the united fragments. And (3) the depressing weight, which should be large enough to remove the forward angular displacement, and which should be so adjusted as to prevent undue inrotation of the upper fragment; and which, if there is too much out-rotation of the upper fragment, should not be put over the trochanter major, but should be put over the lower end of the upper fragment, in order to bring that down in place.

8. In a suit for malpractice after the treatment of a fracture of the femur, it can now be readily understood, that the shortening of the lower limb, that is, the longitudinal displacement of the upper and lower fragments, may be made the cause of the action, for which the jury might bring in a verdict for heavy damages, and very unjustly too on that ground, when the surgeon had done all that was possible to restore the bone to its original length—and when, perhaps, a very much greater deformity of rotary displacement had supervened, without the knowledge of the surgeon, the plaintiff, the attorney, the judge and the jury—which deformity would be a more reasonable cause for action. Such is the imperfection of human work; such is the imperfection of human testimony; such is the imperfection of human justice; and such is the injustice of trying to right an error by a legal wrong.

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## HOSPITAL RECORDS.

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### BELLEVUE HOSPITAL, NEW YORK.

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Reported by E. HOCHHEIMER, M.D., House Surgeon.

#### STRICTURE OF URETHRA—EXTRAVASATION OF URINE—EXTERNAL URETHROTOMY.

Edward A., age 42, was admitted October 28, 1878. He had his first gonorrhœa about twenty-five years ago; his last one about fifteen years ago, with numerous attacks in the intervening ten years. His attention was first drawn to the existence of a stricture about ten years ago, by a partial retention of urine after exposure to cold. Eight years ago his strictures were treated for a short time by gradual dilatation with steel sounds; but as soon as he was considerably benefitted he neglected all treatment, and since that time his stream of urine has been growing slowly but steadily smaller. About three weeks



before admission he had another attack of retention lasting for a short time, and soon after this he noticed a lump in the perinæum; about a week before admission the swelling of the scrotum began.

On admission, the patient was evidently in great pain and could walk with difficulty; his general health appeared to be good. The perinæum was indurated in some parts, in others showed fluctuation. The scrotum was very much enlarged on both sides, and its walls were thick and boggy. A No. 8 bougie was arrested at the inner orifice of the fossa navicularis; several other strictures were found in the pendulous portion of the urethra, and one at the bulbo-membranous junction.

Dr. Mason having decided that external perineal urethrotomy was immediately necessary, I performed the operation. On making an incision in the raphé of the perinæum, numerous small abscesses were found burrowing in various directions and implicating to a considerable extent the floor of the urethra, so that it was only after prolonged and tedious search that a catheter could be passed through the wound into the bladder. There was quite an amount of hemorrhage which was stopped by pressure and ice, all attempts at ligation being unsuccessful on account of the sloughy condition of the tissues. The strictures in the pendulous portion were divided internally. A free incision was made into the scrotum on each side of the median line, and from these a urinous fluid soon commenced to flow.

The patient seemed to rally well from the shock of the operation, but about four hours later he had a severe chill, for which 20 grs. of quinine and a cold sponge-bath were ordered; two hours later his temperature had fallen  $2\frac{1}{2}$  degrees.

For about a week after the operation the patient's temperature varied from  $102\frac{1}{2}$  to 99; since that time it has remained at the latter figure. He passed urine both through the meatus and the perineal wound, the amount issuing through the latter opening becoming gradually smaller, until Dec. 25th, when it closed completely. Meanwhile, Dec. 4th, a small abscess appeared above and a little to the left of the symphysis pubis, and, on being opened, was found to communicate with the urethra, as urine came through it during the act of micturition; this closed at the end of a week.

Now (Jan. 1st) the patient is up and about, passes his urine per via naturale, and in a stream of good size.

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### PERISCOPE.

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#### THE INFLUENCE OF SYPHILIS UPON TRAUMATIC LESIONS.

Berger's conclusions as to the influence of syphilis upon traumatic lesions are as follows:

1.—Syphilis does not generally affect the natural course of wounds.

2.—It manifests its action when the infection has occurred a little time previous to the injury.

3.—Wounds, even grave ones, those of the joints as well as those



which accompany deep seated phlegmons are not in general affected by the existence of an antecedent specific diathesis.

4.—The manifestations of syphilis, in the course of traumatic affections are ordinarily cutaneous and are observed at the cicatrix or even in the parts of the integument which are habitually affected.

#### SYPHILIS OF THE LUNGS.

In connection with the views of Fournier and Rollet the following case reported by Frey is interesting. A Mr. H., came to him at Lippspringe to undergo the bath treatment for an affection of the lungs with which he had been troubled four months. He was twenty-four years old, very much emaciated, had a severe and constant cough and slight fever. His family were not consumptive. There was dulness on percussion, and auscultation in parts indistinct and in others bronchial breathing was heard, but there were no rales. Other portions of the lungs were healthy as also was the heart, while the area of liver dulness was normal. In the mouth numerous ulcers were seen upon the lips and gums. The laryngoscope showed irregular shaped ulcers on the epiglottis and left vocal cord. The patient's history was that he had had a chancre two years previously which had healed under the use of pills, leaving a scar on the frænum. The author says distinctly that the existence of syphilis was undoubted. The patient was treated for twenty days by the inunction method together with doses of decoction of sarsaparilla: while a warm condition of the body was kept and two luke-warm water baths were taken weekly. In eight days the dulness had considerably decreased, the percussion sound was higher and in three weeks it was normal. Prolonged expiration was heard upon auscultation. The ulcers became cicatrized in fourteen days. The fever subsided and cough was wholly cured while the nutrition of the patient was considerably improved. Frey says that he does not very frequently meet with such cases, though complications of chronic lung affections by syphilis are not rarities. He thinks that syphilis exercises a very deleterious, even fatal influence upon pulmonary phthisis. It is to be noted that in this case the morbid process was seated in the upper lobe, a part claimed to be rarely attacked by syphilis. This case shows clearly that we have not as yet acquired a sufficient amount of knowledge to warrant us in drawing conclusions.

#### BLENNORRHAGIC ENDOCARDITIS.

Marty takes the ground held by several French writers that the pericardium and more frequently the endocardium may become inflamed in consequence of blennorrhagia. He does not attempt to explain the pathological relation between the urethral trouble and the cardiac affection, but cites a number of cases showing freedom from rheumatism in which during a blennorrhagia the heart has become affected, the history of which points to the fact that there is some intimate relation between them and that it is not simply a coincidence. From his own cases and from the details of several others he has drawn the chief points in the clinical history of what he calls blennorrhagic endocar-

ditis. The heart trouble is generally observed about one month after the commencement of the blennorrhagia, at which time the discharge may become suddenly very slight or even disappear to reappear again when the former ceases. The mode of invasion is usually insidious or it may be very severe being accompanied by a chill and high fever. In the greater number of cases it is preceded by rheumatic symptoms of varying extent and severity. There is sometimes severe precordial pain, with palpitation and in exceptional instances alarming syncope. In four cases out of seven the murmurs were heard at the base of the heart with the first sound and the details are wanting as to the remainder. Marty offers the following conclusions :

1. Blennorrhagia may become complicated with inflammation of all of the serous membranes, acting in a direct manner on each of them.
2. Rheumatism is not, though the most frequent, the only complication of the disease.
3. The constitution is affected according to its predisposing conditions.
4. Cardiac complications are rare, the aortic orifice being the part most commonly attacked.
5. Blennorrhagic endocarditis may present the same symptoms and is usually attended with the same dangers that accompany the simple form.
6. The endocardium is attacked generally as often if not more frequently than the pericardium.

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#### VEHICLES AND MODES OF EXTENSION OF SYPHILITIC CONTAGION.

S. Löw (*Med. Clin. Rundschau*) read a paper before the Medical Society of Budapest, upon the vehicles and mode of extension of syphilitic contagion in which he advances the following propositions :

1. The venereal diseases, namely, gonorrhoea, chancre and syphilis arise from three different contagions, which have no relation with each other.
2. The vehicles of the syphilis contagion are the secretion of the initial lesion and of the local manifestations of constitutional syphilis, and the blood and syphilitic semen.
3. In the tertiary period, the general manifestations as well as the blood and semen have lost their contagious properties.
4. The physiological secretions with the exception of semen and the pathological secretions of syphilitic persons not derived from syphilitic lesions are not capable of transmitting syphilis. This rule applies also to the milk of nursing women and to the vaccine lymph.
5. Syphilis is transmissible from both father and mother.
6. The general manifestations of hereditary syphilis are equally as contagious as are those of the acquired form.

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#### SYPHILITIC CHANCRES OF THE CERVICAL REGION.

Fournier reports two cases of syphilitic chancre of the cervical region, which are interesting from their great rarity. The first case was that of a young man who had been bitten by a woman upon the neck. The lesion following was an oval erosion of the size of the nail, of a



coppery hue, and presenting the true parchment-like base, being what is called by French writers the *chancre en médaillon*. The woman who inflicted the wound could not be found, but it was ascertained that she was syphilitic. The man later on presented general syphilitic manifestations. The second case was that of a young woman upon the right side of whose neck an oval ulcer was seated. Its surface was of erosive appearance, and its periphery was somewhat elevated while the centre was slightly depressed, being, in fact, saucer shaped. It presented a typical parchment-like induration, and near it an enlarged hard ganglion could be felt. The origin of the lesion was not ascertained, but in due time it was followed by general syphilitic manifestations.

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#### ENLARGEMENT OF THE SPLEEN IN SYPHILIS

Weaver has confirmed Weil's observation that in the course of syphilis and indeed in the period of initial lesion and of general eruption or of relapse a swelling of the spleen may develop. In seventy-nine cases he found the recent splenic tumor six times; an occurrence of little above seven per cent. In three cases with accurate histories, the tumors developed respectively between the eighth and twelfth weeks of infection; between the fifth and tenth weeks after the appearance of the initial sclerosis and between the first and second weeks after the evolution of the general manifestations. Under a mercurial treatment when sufficient mercury had been taken the swelling subsided, in most instances thirty inunctions of 2 grammes of mercurial ointment was the maximum amount of the drug used. The duration of the swellings varied between four and eight weeks. In the early days of their existence it was sometimes found that their size increased, therefore it was necessary to introduce "sufficient quantity of mercury into the blood in order to check and also prevent a redevelopment.

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#### NEWS ITEMS AND NOTES.

**Cultivation of Flowers as a Sanitary Measure.**—An Italian professor has recently made some very agreeable experiments, resulting in the discovery that vegetable perfumes exercise a positively healthy influence on the atmosphere, converting its oxygen into ozone, thus increasing its oxidizing influence. The essences found to develop the largest quantity of ozone are those of cherry, laurel, clover, lavender, mint, juniper, lemon, fennel, and bergamot; those that give it in smaller quantities are anise, nutmeg and thyme. The flowers of the narcissus, hyacinth, mignonette, heliotrope, and lily of the valley develop ozone in closed vessels. Flowers destitute of perfume do not develop it, and those which have but slight perfumes develop it in small quantities. Reasoning from these facts, the professor recommends the cultivation of flowers in marshy districts and in all places infested with animal emanations.



**Tobacco Smoke.**—*Chambers Journal* recalls the attention to the evils resulting from smoking, now so generally practised by boys. It appears that the German Government has taken the matter seriously in hand, as smoking has been practised in great excess by the youth of that country, so that it has been considered to have damaged their constitutions, and incapacitated them for the defence of their country. In certain towns of Germany, the police have been ordered to forbid all boys under sixteen years of age to smoke in the streets, and a punishment by fine or imprisonment is meted to offenders. Moreover, a Belgian physician has found, during a journey of observation and inquiry, made at the request of his government, that the too general and excessive use of tobacco is the main cause of color blindness, an affection which is occasioning increasing anxiety both in Belgium and Germany, from its influence upon railway and other accidents, and also upon military efficiency.

The evil might be greatly moderated, were the medical profession to impress upon parents the importance of their peremptorily forbidding their sons smoking, until they had reached a certain age.

**Chloroform.**—The *Lancet*, following the teachings of Syme, Lister and Hughes in regard to the use of chloroform, asserts that death will never occur from its use, if this simple precaution be observed: "Never mind the pulse, never mind the heart, leave the pupil to itself. Keep your eye on the breathing, and, if it becomes embarrassed to a grave extent, take an artery forceps, and pull the tongue well out." Syme never lost a case from chloroform, although he gave it five thousand times. This simple rule, so he thought, enabled him to make this excellent record.

**Tobacco.**—Mr. Nettleship has contributed to the *Medical Times and Gazette* a series of fourteen cases, in all of which tobacco had had an injurious effect. Most of them were confirmed and large smokers. The characteristic symptom was dimness of sight (amblyopia) more or less pronounced, which was improved in every case by ceasing to use tobacco.—*Southern Clinic*.

**Lady Physicians.**—It is reported that two young ladies, an American and an Austrian, have taken degrees as doctors of medicine at the University of Berne, having passed excellent examinations. A young Swiss lady has taken the degree of Doctor of Philosophy in the same institution.

**Closed Vacant Houses.**—The *London Lancet* mentions the assertion of a sanitary officer, namely, that when houses are reoccupied, after having been empty for some time, an outbreak of typhoid, diphtheria, or other zymotic affection often occurs. The cause is supposed to be an absence of water in the cistern and pipes, and the presence of foul air from the main sewer, and the closure of all windows and other means for the admission of pure air.

**Imperfect Prescription.**—The *Berlin Klin. Woch.* relates the following: "A physician of Sangerhausen in Thuringia, having occasion to

prescribe for sleeplessness in a hysterical patient, wrote the following prescription :

R.

Chlorhydr,	15.0.
Tinc. Opii,	15.
Aquæ,	60.

M. A third part to be administered as an enema.

The patient died, and a prosecution was instituted against the physician and the apothecary who dispensed the prescription. A *lapsus calami* had been committed on the part of the former, who omitted to put "gtt" after "Tinc. Opii, 15." The prescription was made up by a young unqualified pupil, who read the 15 to signify *grammes*, as the 15 of the choloral, and the 60 of the water obviously did. A properly educated apothecary would have taken the prescription to the physician before dispensing it. The court sentenced the physician to one month's imprisonment, the apothecary to two months, and his pupil to three months.

**Worth Remembered and Rewarded.**—In consideration of her husband's eminent professional services on behalf of the State and science, the German government has continued to the widow of Rokitsky his pension, besides conferring upon her "a special donation." Notwithstanding his having occupied many positions of trust Rokitsky died a poor man.

## BULLETIN OF THE PUBLIC HEALTH.

Issued by the Surgeon-General U. S. Marine Hospital Service, under the National Quarantine Act of 1878.

[No. 27. Week ended January 15, 1879.]

OFFICE SURGEON-GENERAL, M. H. S.

Washington, Jan. 15, 1879.

**Massachusetts.**—Week ended Jan. 4th. In 16 cities, with an aggregate population of 712,800, there were 314 deaths, an average annual ratio of 23 per 1,000 of the population. Ratio at Pittsfield, 8.24; Springfield, 15; Worcester, 19; Fall River, 21; Lynn, 24.5; Gloucester, 24.3.

**Boston.**—Week ended Jan. 11th. Deaths from all causes, 168. Annual ratio 23; 31 cases of scarlet fever, 8 deaths; 25 cases of diphtheria, 11 deaths; 36 deaths from phthisis, 26 from pneumonia, 7 from bronchitis.

**New Haven.**—Month of Dec. Total deaths, 91. Annual ratio, 13.2; 20 per cent. of all the deaths were from "zymotic" diseases, 14 deaths from phthisis, 8 from pneumonia.

**New York.**—Week ended Jan. 11th. Total deaths, 569. Annual ratio, 27.1; 22 deaths from diphtheria, 54 from scarlet fever, 82 deaths from phthisis, 68 from pneumonia, 28 from bronchitis.

**Philadelphia.**—Two weeks ended Jan. 11th. Total deaths, 672. Annual ratio, 20; 24 deaths from diphtheria, 20 from scarlet fever, 11 from enteric fever.



*Baltimore.*—Week ended Jan. 11th; 162 deaths. Annual ratio, 23; 8 deaths from diphtheria, 4 from scarlet fever, 17 from phthisis, 19 from pneumonia, 13 from bronchitis, 23 decedents whose ages averaged 80 years each.

*District of Columbia.*—Week ended Jan 11th; 81 deaths. Annual ratio, 26; 4 deaths from scarlet fever, 3 from diphtheria.

*Norfolk.*—Month of Dec. Total deaths 43. Annual ratio, 22.4; 7 deaths from phthisis, 15 from acute pulmonary diseases.

*Pittsburgh.*—Week ended Jan. 4th. Total deaths 49. Annual ratio, 17.6; 8 deaths from diphtheria.

*Cincinnati.*—Week ended Jan. 4th. Total deaths 97. Average ratio 18. 24 deaths from scarlet fever, 6 deaths from diphtheria.

*Milwaukee.*—Week ended Jan. 4th. Total deaths 44. Annual ratio 19. 24 cases of diphtheria, 6 deaths.

*Salt Lake City.*—Month of December. Total deaths 44. Annual ratio 20. 22 deaths from diphtheria.

*New Orleans.*—2 weeks ended Jan. 5th. Total deaths 167. Annual ratio 20. 23 deaths from phthisis, 25 from pneumonia and bronchitis, 2 from diphtheria.

*Havana.*—Week ended Jan. 11th. 1 death from yellow fever, 11 deaths from small-pox.

*Great Britain.*—Week ended Dec. 21st. In twenty large towns of England with an aggregate population of 7,270,000 there were 4,500 deaths, an average annual ratio of 32.3 against 22.6 and 24.4 in the corresponding period of 1876 and 1877. The excessive mortality was due to the acute pulmonary affections, resulting from the unusually cold weather. The death rate at Portsmouth was 24; Brighton, 31; Birmingham, 31; Sheffield, 34; Bristol, 36; Manchester, 38; Liverpool, 39.

*London.*—Week ended Dec. 21st. Total deaths 2,133. Annual ratio 31. There were 650 deaths from acute pulmonary diseases. 194 from phthisis, 55 from scarlet fever, 18 from diphtheria, 14 from small-pox. 198 cases of the latter disease remained in the hospitals on Dec. 21st.

*Dublin.*—Week ended Dec. 21st. Total deaths 248. Annual ratio 41. 87 deaths from acute lung diseases, 15 from small-pox. There was an alarming increase in the number of new cases of the latter disease during the week. 136 cases remaining in the hospitals December 21st.

*Paris.*—Week ended Dec. 19th. 1007 deaths. Annual ratio 26.3. 23 deaths from enteric fever, 19 from diphtheria, 4 from small-pox.

*German Empire.*—Week ended Dec. 14th. In 150 towns with an aggregate population of 7,419,000 there were 3465 deaths, an annual average ratio of 25 per 1000 of the population. There were 59 deaths from measles, 89 from scarlet fever, 228 from diphtheria, 481 from phthisis, 401 from acute pulmonary diseases. 48.3 per cent. of all the deaths were of children under 5 years of age.

*Berlin.*—Week ended Dec. 14th. Total deaths 487. Annual ratio 24.5. 37 deaths from diphtheria.

*Vienna.*—Week ended Dec. 14th. Total deaths 408. Annual ratio



29.2. 7 deaths from small-pox, 8 from scarlet fever, 32 from diphtheria. The last advices report the latter disease as very prevalent, and on the increase.

*St. Petersburg.*—Week ended Dec. 7th. Total deaths 539. Annual ratio 42. 31 deaths from small-pox, 30 from enteric fever, 12 from scarlet fever, 10 from diphtheria.

*India—Calcutta.*—Week ended Nov. 26th. Total deaths 428. Annual ratio 52. 201 deaths from fevers, 12 from cholera.

*Bombay.*—Week ended Nov. 19th. 486 deaths. Annual ratio 31. 184 deaths from fevers, 9 from cholera.

*Madras.*—Week ended Nov. 8th. Total deaths 325. Annual ratio 42.5. 3 deaths from small-pox, 114 from fevers.

*In the Province of Punjab* there were 1317 deaths from small-pox in the month preceding Sept. 21st. The disease is now on the decrease. The deaths from fevers in the same period numbered over 30,000, and are increasing.

*Brooklyn, N. Y.*—Week ended Jan. 11th. 224 deaths. Annual ratio 20.6. 90 cases of scarlet fever, 15 deaths. 43 cases of diphtheria, 19 deaths.

JNO. M. WOODWORTH.  
Surgeon-General.  
U. S. Marine Hospital Service.

# THE HOSPITAL GAZETTE

AND

ARCHIVES OF CLINICAL SURGERY.

A WEEKLY JOURNAL OF MEDICINE, SURGERY AND THE COLLATERAL SCIENCES.

EDITED BY

EDWARD J. BERMINGHAM, A.M., M.D., and FREDERICK A. LYONS, A.M. M.D.

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## ORIGINAL ARTICLES.

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### THE TREATMENT OF SPINAL CURVATURE BY CONTINUOUS EXTENSION—A MODIFICATION OF THE PLASTER-OF-PARIS JACKET.

[Read before the New York County Medical Society, January 27th, 1879.]

BY

JNO. A. WYETH, M.D.

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*Extension, fixation and rest.*—These are the cardinal principles in the treatment of lesions of the vertebral column. Add to these good hygiene and judicious medication and we have the sum of all the indications.

Instrumentation can be successful, only as it meets these demands and when we speak of the *wheel crutch*, the *Taylor brace*, and the *Plaster-of-Paris Jacket*, we witness in each of these a decided advance in our progressive science.

Each of these has its merits and demerits. Each has its champions and advocates among some of our most earnest workers and practical surgeons.

It would be *well* for us, it would be *better* for humanity, if in the liberal spirit of true progress, we could, regardless of individuality, lay aside our prejudices, meet in the broad field of scientific discussion, courteously compare our notes, and profit by that wisdom which is found in a multitude of council.

The plaster jacket was a great stride in the right direction. Its simplicity attracted universal attention, and it spread like wild-fire before the blasts of its enthusiastic advocates.

Some of us thought that we had found the *ne plus ultra* in the management of Pott's disease; that sufferers had now nothing more to do but be suspended by the arms and neck, enveloped in Plaster-of-Paris and be cured.

But let us ask pointedly, has it fulfilled these expectations? Does it meet fully all the indications in Pott's disease? I believe it comes nearer it than any other method yet made known to the public, but it has failed at times; it has its faults and these I shall try to point out, and hope to suggest the remedy.

In order to obtain the first great requisite, *extension*, by this method, the patient is suspended by the neck and arms, lifted well up from the

floor, the lower portion of the body is the counter-extending force, the diseased surfaces are separated, and while in this position, the trunk is locked in the plaster jacket.

If this *grip* of the jacket could be uniformly maintained, it would meet more fully than it does the indications. But any one experienced in its use will recognize this objection; it loses its firm hold in from 7 to 10 days after its application, and hence loses its property of holding at rest and separated, the diseased surfaces.

This results from two causes, 1st, the atrophy and yielding of the abdominal and thoracic structures under this abnormal pressure; 2d, the softening and relaxation of the plaster itself from the absorption of bodily moisture.

It follows of necessity, that the support having yielded, the upper portion of the body telescopes down upon the lower, the diseased structures are grinding in contact, and *the benefit obtained by extension before application is lost by the collapse which follows.*

Hence arises the necessity of removing the apparatus and reapplying it, in itself at times painful and annoying. So I have found it, notwithstanding, I have been able to finish the dressing in ten minutes of suspension.



**Fig. 1.**

Again, pressure upon the protruding spine often excoriates or prevents the healing of a pre-existing sore, and although a *fenestra* is cut, it is objectionable, since the discharge from the ulcer gets beneath the dressing causing an offensive odor and removal of the jacket.

Or a fragment of plaster, or foreign body dropping between the dressing and the skin, gives rise to excoriations and requires removal of the dressing and its re-application. (1)

The method to which I now ask your attention, obviates these various difficulties.

Without suspending my patient, the arms being held out of the way by an assistant; outside of the tightly-fitting knit undershirt, I apply *two* jackets of the required thickness. The lower edge of the upper jacket is just above the diseased points and extends upward to the arms. The upper edge of the inferior jacket is just below the seat of disease, and extends down over the hips (see figs. 2 and 3.) As the plaster bandages are "setting," I place three zinc plates about 2 by 4 inches, perforated by numerous holes (See A, fig. 1) from opposite

(1) In one of my cases I had to remove the *solid jacket* on account of several grains of corn having fallen down the patient's back producing excoriations.



surfaces so as to prevent them slipping), in each section of the jacket. To the center of the plate (at B) is securely riveted a flattened staple of iron. One of these is fastened over the spinal column above and below, one under each arm and one directly underneath these over the hips. These are held securely in position by several turns of the plaster bandages, passed over them alternately above and below the *staples* which are left exposed. (See fig. 2.)



**Fig. 2.**

As soon as the jackets are firmly "set" the *extension* bars (represented in fig. 2) can be applied.

Each bar consists of a shoulder at each end, and a solid section cut with cogs and grooves which telescopes into a hollow section, with a key for lengthening or shortening, and a "spring-catch" to hold it fixed at any point. It is the same mechanism that is used in Prof. Sayre's knee-joint splint.

The shoulders are caught in the staples riveted to the immovable plates, and the requisite extension is secured by means of the key.

Mr. Harz, of Reynolders & Co., has, with creditable ingenuity, devised for me a lighter *extension-bar* (see fig. 1) consisting simply of a male screw C, which works into a movable female screw D, which secures the same extension as the *bars* in fig. 2. The key to this instrument is figured at G, and at E is a catch for locking.

The principle, the application and the mechanism of this method is so simple that I deem any detailed explanation unnecessary.

In fig. 2, the *double plaster jacket* with three extension bars in position, is seen, and in fig. 3, is a front view of the same.

The amount of extension is under the perfect control of the surgeon, and can be graduated to suit the comfort of the patient and the necessities of the disease. As the jackets yield, as they will under all circumstances to a greater or lesser extent, the extension is increased to meet the exigency and the same jackets will last throughout the treatment. At night, or at any time while the patient is reclining, when there is not a demand for much support the middle bar is removed, allowing the patient to rest comfortably on the back.



**Fig. 3.**

It will be seen that by my method the upper portion of the body rests upon the tripod of bars which are anchored, one over the sacrum and one over each hip, and that the diseased spinal column is relieved from all pressure from above or laterally. If there exists a lateral curvature one of the lateral bars can be extended more than the other and the curvature corrected. If the curvature is antero-posterior with the convexity backward lordosis the posterior bar will demand extra extension, and if the convexity of the curve is backward, the two lateral bars will require extension at the expense of the posterior.

Around the portion of the body between the two jackets, a dry unplastered roller is carried moderately tight in order to retain any dressing on the sore (if this exist) and to equalize the pressure.

In figures 4 and 5, is represented a soft buckskin-padded jacket,



**Fig. 4.**



**Fig. 5.**



made by Mr. Harz, of Reynders & Co., which is used for the few weeks following the removal of the plaster jacket. The mechanism is the same and it is used to guard against the accidents likely to occur to children liberated from the bondage of Pott's disease and surgical treatment. If plaster-of-Paris cannot be obtained, liquid glass, bandages immersed in mucilage, or the starch bandages will answer. Gypsum is best since it does not undergo any ferment in contact with bodily moisture, but the starch bandages are stronger and do not require to be put on so thick as the former. One-quarter of an inch in thickness will usually suffice. The screws and plates can be made by any country blacksmith of ordinary ingenuity or can be obtained from Reynders & Co., New York.

From my notes I take the following case which is in every respect a critical test of the value of this method, since it was successfully tried under the worst possible conditions and after all other methods had been faithfully tried under conditions which should have insured a better chance of success.

I asked the mother of the boy to give me the history in full up to the time he came under my care, and I give it condensed from her own description.

CASE.—When  $3\frac{1}{2}$  years old, while sitting at the table, the child suddenly began screaming with pain in his back. He had received no fall or blow to our knowledge. The family physician was sent for, who said the child had probably caught cold, and ordered ice-water locally, and in two or three days the trouble ceased. Six months later the same symptoms recurred and with such severity the patient could not walk. The physician now suspected lesion of the spinal column, repeated the ice-water application, re-enforced by two leeches, with temporary relief. We noticed that at this time he walked a little one-sided and occasionally complained of pain in the side. A friend advised us to take him to the Forty-second street hospital in New York, which we did. After a careful examination the trouble was pronounced hip-disease, and a Spanish fly blister was ordered. Not feeling satisfied with this treatment we took the child to Dr. Taylor's Institute, where the disease was pronounced "Potts Disease of the Spine," and a brace was fitted and applied to him. Went there several times with him, but our means did not allow us to pay the sum they charged by the year, saying it would take probably three or four years to effect a cure, they referred us to a surgeon who would follow their plan of treatment exactly with the same instrument. He was there treated for several months with no perceptible benefit, and the brace was worn for nearly four years in all, until in 1876 he was so much worse that he could not walk a block without sitting down to rest. At this time we removed to Binghamton, where we consulted Dr. Burr, who removed the brace and applied the plaster-of-Paris jacket. This was worn about five months and was an improvement, as the child complained less of the pain, but as it of itself became painful and had caused an ulcer at the point of curvature it had to be removed, and the old brace was readjusted. He again grew worse, ran down in flesh, and became almost helpless. About this time a

gentleman, whose son you had treated for this same disease, who happened to see the boy, sent us to consult you, and of his condition when you first saw him you can better judge than we.

I saw this boy at my office on April 3, 1878. He was so withered up by this exhausting disease that he was literally a living skeleton. Over the 2nd and 3d lumbar vertebræ there was a large protuberance projecting two or three inches beyond the normal surface, and spreading laterally several inches and this was covered with an ill-conditioned ulcer. Above this, the back had sunk in, producing an exaggerated lordosis, and the abdomen stuck out in front as in pregnancy, and to render the case still more complicated there was a marked lateral curvature, the convexity to the right side. (The patient was right-handed.)

He was partially paralyzed in the lower extremities, could not possibly move directly to the front, but shuffled along sideways in any attempt at locomotion.

I immediately applied the *solid plaster jacket* as I had done before, and believing that a cure was certain I sent him home. In four weeks his parents returned with him saying that for *the first week or two there was some improvement, but after that he had "gone back" again*. The jacket had worked loose and in the course of these two weeks the upper portion of the body had *telescoped* down on the lower, and the jacket was a failure. I removed it, and immediately applied another just like it, and with some misgiving sent him home again. *In a few weeks they returned with the same story as before.*

I then recognized that *temporary extension*, the only extension the solid plaster jacket secured, was not sufficient, that it was only a step in the right direction, and that in this case I must use an extension which I could control and regulate with mathematical precision for a prolonged period, or this boy would inevitably die, and that very soon.

I then devised and put into execution the method so fully described in the foregoing pages.

As I had to be absent in Europe for the three months following the inauguration of this treatment, I wrote a letter to a talented young surgeon of Binghamton, Dr. D. G. Burr, explaining in full the management of the case.

I am deeply indebted to him for the skill and judgment he displayed in bringing the case to a successful issue, and it was at his suggestion that I have adopted the *perforated plate*, which is less likely to slip than the smooth one. In three months and a half the jackets were removed, and the patient was cured. Not only had ossification occurred at the point of lesion, but the gradual and *continuous extension* had overcome both the curvatures.

On Nov. 26, nine weeks after the jackets were removed, Dr. Burr writes me, "I have been to see the boy, and find him as well and hearty as can be. He has gained in flesh, and is gaining rapidly, and I think the trouble has ceased," and the parents wrote me a month later that "he seems to be well, and is going regularly to school." I have reported this case in detail, because I wished to show that the child was in a very critical condition when the treatment was begun,



and that under better physical conditions and under auspices more favorable in every respect, all other methods of treatment had after full and faithful trial in the hands of experts, proven unsuccessful.

In conclusion, I would advance these aphorisms :

1. That inflammation of the intervertebral substance, or caries of the vertebrae, is amenable to the same treatment as the same lesion in the ankle, knee, hip or other joints, and that *continuous extension*, regulated to suit the requirements of each case, in the one as in the other, enforces *fixation* and *rest*, and thus meets these great indications more fully than any other method.

2. That the Darroch *wheel crutch* and other instruments, acting upon this same principle, creditable to inventive genius in a former generation, have served their respective careers of usefulness, been superseded by better methods, and have properly ceased to be.

3. That among modern instruments, the apparatus originated by Dr C. F. Taylor, has justly occupied a prominent position.

It may be made useful in the treatment of the lesions under consideration when taken in their incipency, but that since *extension*, *fixation* and *rest* are the indications in *every stage* of this disease, it does not enforce these indications as does the *solid plaster jacket*, or the "Double Jacket with Continuous Extension."

I object to it, in that it *presses upon the seat of lesion*; in that *pressing upon a comparatively small portion of the body*, in order to catch a sufficiently firm hold, it is more *liable to set up local irritation at these points of pressure*; in that as an instrument it is expensive, as alike in the time required for permanent relief under its use, which is three or four years.

4. That the "Solid Plaster-of-Paris Jacket" is one of the most creditable innovations in modern surgery, the introduction of which has placed the medical profession and humanity under lasting obligations to Dr. Joseph Bryan and Prof. Lewis A. Sayre.

It is objectionable; *a* in that to apply it, it requires the *suspension* of the patient, a procedure accompanied with more or less annoyance and pain, and requiring a complicated apparatus.

*b* In that and chiefly, that it does not secure *continuous extension*. It does not *hold the extension*, gained by *suspension* before its application owing to shrinkage of the body from abnormal pressure, and yielding of the dressing from absorption of bodily moisture.

*c* In that it involves direct pressure upon the seat of disease interfering more or less with the reparative process and causes unnecessary trouble in the management of whatever ulceration may exist over the seat of disease or elsewhere.

*d* In that the lodging of foreign bodies beneath the jacket, requires its removal and readjustment.

5. The "Double Plaster-of-Paris Jacket, with Extension Bars" which I have heretofore described, I believe to obviate these difficulties, since *a* it can be applied without suspension; *b* it involves pressure alone upon the sound structures leaving the circulation free and unimpaired at the seat of lesion where active repair is needed, it allows ready access to ulcerating surfaces when these exist; *c*



foreign bodies can be removed without removing the dressing ; (*d*) by means of the *extension bars* the *extension* and *fixation* can be daily regulated with mathematical precision, and can be constantly maintained without changing the dressing, no matter how much the jackets themselves may stretch or the tissues atrophy, and I hold that this *continuous extension* not only tends to cure the *disease* more rapidly, but at the same time, while the diseased structures are soft and yielding, will correct the *deformity* more thoroughly than any other method.

No. 44 W. 27TH ST., Jan. 1879.

DR. FRANK H. HAMILTON'S REMARKS.

(Revised by the Speaker.)

Mr. President, there is a seeming fitness in the discussion of this subject at this time, for it is this year just one hundred years since Percival Pott published his remarkable work on caries of the spine. Hitherto Surgeons had regarded this malady as a purely traumatic accident, as being of the nature of a fracture, or of a dislocation, while Mr. Pott recognized in it a strumous malady, which found its immediate source indeed, often in some local injury, but whose continuance, progress and too often fatal termination depended essentially upon a strumous constitution. The correctness of this doctrine which he took so much pains to enforce by the results of his observation and experience, has been of late, by some called in question, but we are not to discuss these points to-night, of Mr. Pott we only wished to say that whatever differences of opinion there may be as to his theory of its causation or his treatment even, there can be none as to the fact that he was the first to throw light upon the subject of its pathology or of the special character of the lesions which gave rise to the peculiar angular deformity.

Mr. Pott used no apparatus in the treatment of this disease, but confined his patients to their beds, and applied issues to the back. This latter he claimed especially to be his great discovery, and that which chiefly induced him to write upon this subject. We are not quite certain but that the benefits which he ascribed to the issue were actually due to the recumbent posture, which the issue made necessary. In adopting the recumbent posture Mr. Pott reflected the sentiments of his own day, but which nothing but an issue would so absolutely enforce.

The practice of retaining the patient in the recumbent posture throughout the treatment of this disease, I learn upon the authority of Dr. Bauer, in his orthopædic surgery, is general in Germany and Austria ; and Dr. Bauer himself believes that the patient should be kept in a horizontal position until the cure is effected. I cannot accept these views, believing as I do, that only for short periods of time ought this position to be enforced, and that there are many cases which do not demand this as a continuous plan of treatment at all. It seems to have been reserved then for the surgeons of Great Britain and of America to make what I regard as a great step toward the successful treatment of this malady. I do not speak from very positive knowledge of what other nations have done in the construction of mechanical contrivances, which will permit the patient to walk about while at the same time immobility and support is given to the

spinal column. It is my impression however that American and English surgeons, but especially American surgeons have taken the lead in this matter.

To me it seems a long step in the right direction; because whether we accept the views of Pott, that the malady in question has its essential source, its predisposing cause in a constitutional dyscrasy, or not, it is certain that these patients do sooner or later become feeble and anæmic, and it seems equally certain that if by any means we can secure immobility and support while the patient is permitted to walk about it is a great gain. There is no other way in which health can be improved so certainly and speedily.

Hitherto we have thought only of support and fixation with, at the same time, a slight tilting back of the spine, in order to throw the weight more upon the oblique processes. Now Dr. Wyeth proposes to go a step further, and add to immobility and support, extension.

In the presence of the interesting case just reported, in the treatment of which, under many difficulties, our distinguished *confrere* has displayed extraordinary patience; and for the successful termination of which he is entitled to great credit, I hesitate to offer a criticism upon the apparatus employed or the principles which are involved in its construction; especially as my objections must be in a great measure theoretical. This is the only case in which, so far as I know, the method has been tried, and, of course, I have no experience, from which to draw conclusions; but I do not think the principle of continuous extension in this case is sound, I think there is no proper analogy between the spine and the joints in this regard, and I fear it will fail of accomplishing the ends which are desired.

I will state my objections:—The first is an anatomical objection.

So far as the *counter-extension* is concerned the conditions for its accomplishment are ample. The alæ of the pelvis and the promontory of the sacrum afford all the breadth and length of support and all the immobility and fixedness which are needed; and by all those gentlemen who have constructed spinal supports, these bones have been employed as adequate bases of support, or, in other words, as means of counter-extension.

It is now only required to find some point or points of support equally tolerant of pressure for *counter-extension*.

The head cannot be used for that purpose, except for a few moments at a time, and even then the extension must be very moderate or it would prove as disastrous as other and better legalized modes of suspension, technically called "hanging." The ligaments which bind the head to the atlas and axis are long and flexible, but not very strong, and they are wholly unaccustomed to a vertical strain. No one in his senses has ever attempted to make any considerable vertical and permanent extension from the head when the patient is erect. It is quite practicable to do this when the patient is in the horizontal position, since under these circumstances no portion of the weight of the trunk or of the body has to be borne by the ligaments, and I



myself have made permanent extension from the head when the patient was lying in bed, in several examples of fracture of the vertebræ.

When patients have their heads suspended in the gallows, or jury-mast head support, no *extension* of the spine is made which extends to the seat of lesion. Certainly none which is appreciable. The portion of the spine which is above the point of lesion may be appreciably straightened, yet not much, and all, or nearly all the relief which the patients get is, that the posterior muscles of the neck are relieved of their labor in sustaining the head—which labor is much greater in case of kyphosis than in the case of a sound spine, because the head is in the former case so much in front of the vertical line that much more muscular effort is required to keep it in place. This relief to the muscles, and the additional fixation or rest given to the point of lesion, are sufficient reasons for the use of the head-rest, as I would choose to term it, in all cases where the lateral supports cannot be made to give support to the portion of the column above the angular distortion.

Let us next consider the thorax as a point for the application of the extension. As what might be termed the basis or fixed point for support in extension. Divested of its soft parts the thorax is a cone with its apex above and its base below. Whatever changes may result in the form of the chest in the case of women who have long worn very tight corsets, the form of the chest in the child and in all adult men, and in most women is a cone with its apex above. It may be assumed, therefore, that it is mechanically absurd to make use of the circumference of the chest—its bony parietes—as the basis of support for extension.

If it is claimed that the point of support is the lower margin of the true and false ribs; it must be assumed that the ribs have been expanded or lifted to their utmost by forced inspiration, and that this forced inspiration has been maintained until the apparatus is applied. Now what becomes of the extension when, immediately after—for there is a limit to the extent of time a man can hold his breath—he expires! The ribs will collapse and telescope within the jacket or basis of support for the extension, and all extension will cease. When a plaster-of-Paris jacket is applied with the arms lifted, and the thorax is thus considerably expanded by the action of the pectoral muscles, this very thing happens—the ribs contract and fall the moment the arm is dropped to the sides, and so far as the action of the extending force on the *ribs* is concerned, it ceases to be effective—it is absolutely nothing.

If on the other hand the chest band, or the basis of support for extension, is made so firm or tight over the lower portion of the ribs and the stomach—and it cannot include one without including the other—as to cause *complete immobility* of the ribs, compelling him to breathe wholly by his diaphragm and providing no place for his dinner but few of the little patients would survive many days; and I observe in all the cases in which I have seen either of the many forms of corset, including the plaster-of-Paris, applied and worn with comfort, the ribs have not been completely immobilized. The pad which is



placed over the stomach usually, while the plaster-of-Paris corset is being applied, and which is immediately after removed, provides both for the "dinner" and the expansion of the lower part of the chest, consequently the basis of extension is lost.

But no one applies a corset or any other form of spinal apparatus, by which he proposes to make extension, directly against the naked ribs. They are applied to the ribs covered by their muscles and other soft parts; and the thorax covered by its soft parts is, in many cases, a cone with its base upwards and its apex downwards. It might seem, therefore, practicable to make it a basis of support for the extension.

Let us consider, however, that the largest part of the increased breadth at the top of the chest is due to the great size and direction of the pectoralis major and latissimus dorsi. When the plaster-of-Paris corset is applied, then the arms are lifted and their margins are made to traverse the axillary space at a lower point. The corset being applied to a point near these margins of the muscles, the arms are lowered and now what is the basis of support for the counter-extension? Certainly not the bony walls of the chest. If anything, it must be the margins of the axillæ—namely, the pectoralis major and the latissimus dorsi—chiefly the latter. Surgeons who have studied the use of extension in the treatment of fractures of the humerus and the femur, have long since learned that as a point of support for counter-extension, the axilla has no value whatever, and no one, so far, I know, now thinks of employing it; but in this case there exists a special objection which does not apply to fractures of the humerus and femur, namely;—that the latissimus dorsi arises from the six lower dorsal vertebræ, all the lumbar, the sacrum and the ilium; so that all the points of origin are in many cases below the seat of spinal disease, and in all cases its points of origin are chiefly below the seat of disease. Pressure upon its margin therefore in the axilla cannot possibly lift that portion of the spinal column which is above the seat of lesion from that which is below. It will not be difficult to show also, anatomically, that the margin of the pectoralis major is no more available.

What then does my distinguished friend Dr. Wyeth, propose to do? He proposes to do, as I understand, what he believes has never been done before, and what I believe has never been done before, to make permanent extension upon the spine in the erect position, and while walking about. He proposes to do this by driving up the thoracic portion of his apparatus from time to time, until it finds a point of support against certain resisting forces. In the light of the anatomical facts I have presented, this seems to me to be equally impossible with his apparatus as with forms of apparatus hitherto devised. His efforts are ingenious, but I cannot believe they will be successful.

Mr. President, there seems to me to be other reasons than anatomical, why this permanent extension in the erect posture cannot be accomplished by this or any other apparatus. There is, I think, a pathological reason of some importance. When these cases come under observation the malady has in most cases existed in an obscure

and undetected form for sometime—perhaps many months—and the inflammation which lies always at the foundation of the malady, whether commencing in the ligaments, the bodies of the vertebræ, or the intervertebral disks, has in all probability invaded the adjacent tissues, resulting in effusions and the formation of connective tissue—the invariable products of inflammation, which here as elsewhere, must offer a certain amount of resistance to the extension. I do not speak now of the pain it may cause, but only of the mechanical obstacle it is likely to offer. In some cases this may be inconsiderable, but in other cases it must be sufficient to demand more force than could be prudently applied to overcome it.

I suppose that no advocate of permanent extension would think it proper to make such extension as to force asunder approximating fragments to the extent of half an inch or an inch. Every one understands what injury would be likely to result from this. But with the apparatus hitherto employed—with the plaster-of-Parris corset, or with the apparatus of Dr. Wyeth, is it possible to relieve the pressure permanently without opening the fragments at first—when first applied—half an inch or more, thus making allowance for the yielding of the points of resistance in the extending apparatus? If the extension was at first only sufficient to ease the pressure, it seems logical to suppose that in a very short time it would relax until the pressure was the same as it was before.

I am prepared to go farther and to give it as my opinion that continuous extension is unnecessary, indeed, that if actually accomplished it would prove injurious.

In attempting to erect and support the spine by the forms of apparel now in use, the bodies of the vertebræ are necessarily relieved to some extent of the weight of that portion of the body which is above; and to the same extent the weight is thrown upon the articulating surfaces of the oblique processes, which are rarely, if ever diseased. The articulating facets of the cervical and dorsal oblique processes are very favorably situated to sustain this pressure. But this is a thing wholly different from *continuous* extension made in the direction of the axis of the spine, and this is not what is meant by Dr. Wyeth, as I understand him. This is, no doubt, useful; but after all I have some question whether even the value of this has not been over-estimated, and whether the great relief afforded by nearly all of these forms of apparel has not been due mostly to the fixation or quiet which they secure to the spinal column; and especially in that they prevent effectually any sudden displacement of the body forwards, by which flexion great pain is caused to the little sufferer. Still more, these forms of apparatus give relief and contribute to the final cure, by relieving the *muscles* of the back from the great labor they were before compelled to perform, in order to prevent the body from suddenly falling forwards, and thus causing painful pressure upon the seat of the disease. For days, and weeks, and months, these poor children have kept the muscles of their backs in a condition of extreme tension, in order to prevent those sudden and painful bendings of the spine which their experience has taught them, causes



most of their suffering. Every motion of their bodies indicates that they are laboring to fix the spine, and when they sit down to rest they place their elbows upon their knees and thus give rest to the wearied muscles of the back. It was these muscles which needed relief—not the back—not the point of actual disease, for they had not actually experienced any pain, perhaps for all the day, at this point. They had effectually prevented pain by splinting their backs with tense and hardened muscles. The moment, therefore, a well adjusted spinal support is applied, the child is relieved. The support now does the work which the muscles had done before, and the muscles being at rest he is at rest.

I am not now to discuss which of these many forms of apparel is the best. I must be permitted to say that I have treated a great many of these cases in the course of my life, and with various forms of apparatus, and almost always with more or less benefit to the patients. It is not my intention now, I say, to discuss the relative merits of the plaster-of-Paris corset, or jacket, of Dr. Wood's corset, or Dr. Taylor's or Davis'. They give fixation and support, and thus relieve the muscles. But none of them have any special efficiency in straightening the spine at the point of lesion. This has been my experience with them all, and I have seen no satisfactory evidence that others succeed in overcoming an angular curvature which actually exists; unless it be occasionally in recent cases, before actual disintegration of the vertebræ has taken place, and these only in a very inconsiderable degree. I know that this is often claimed by specialists in using their own peculiar forms of apparatus, but I think I can see how they are deceived. Sometimes there is a little swelling over the spinous process which may disappear; but in most cases what they regard as a diminution of the projection is merely an obliteration or diminution of the excessive, or compensating curves. This may be illustrated by a case reported on page 383 of the edition of Dr. Sayre's work on orthopædic surgery published in 1876. The child, C. E. G., æt. 5½ years, is first shown in a wood cut leaning over the back of a chair, the right arm being thrown forwards, and the gibbus involving the 7th, and 8th, and 9th vertebræ is quite marked. With a strip of lead the form of the back was then taken. The child being then suspended by the head and axillæ the leaden tape was again applied, and the result is shown by Fig. 228, "proving with a positive mathematical certainty the change which had taken place in the curve of the spine." The change is conspicuous, and no doubt the child was from half an inch to an inch taller than she was before; but an examination of the lines will show, that all this change was effected by the complete obliteration of the great anterior curve, which had previously existed in that portion of the spine which was below the seat of disease—at the point of lesion, where the angular curvature existed, there was no change whatever, or nothing which was appreciable. It is in this way that surgeons seem to me to have sometimes deceived themselves, and, unintentionally no doubt, deceived others.

One thing more I must say as showing the difficulty of correcting these angular deformities. After a certain stage of progress, in most



cases, there is an actual displacement backwards of the spinous processes, which nothing but a direct crushing force from behind, could overcome.

But I have said that, aside of the fact that continuous extension is not likely to overcome this angular distortion when it actually exists, the continuous extension is unnecessary and hazardous. In order to be effective it must not be interrupted or occasional; and to accomplish this there must be at first separation at least to the extent of half an inch, so as to make allowance for the gradual yielding of the points of resistance about the chest. Otherwise, if it were only gently lifted and not separated widely, it would soon fall back to precisely where it was before. One cannot but see what harm must come of this violent separation and falling together again of the diseased structures, causing a dangerous traumatism to all the tissues involved.

Finally, gentlemen I cannot allow you to suppose that I would resist any innovations upon established practice which could in any way be useful to this class of unfortunates. God forbid that I should do so. But I am not convinced that continuous extension, in the erect posture, is yet possible, or that it is desirable.

I do not know but that as a means of fixation and support this apparatus of Dr. Wyeth's is superior to all others yet devised. His remarkable success in the case presented, after a fair trial of several other methods, including the plaster-jacket and Taylor's apparatus, would seem to prove that it is in some essential points the nearest approach to perfection we have yet attained, and must ensure for it a further trial in the hands of other surgeons. The only point which I feel willing to question is, whether its value consists in its ability to make continuous extension.

#### DR. V. P. GIBNEY'S REMARKS.

(Revised by the Speaker.)

Dr. Gibney then spoke as follows:—My friend Dr. Wyeth kindly wrote me some days ago inviting me to make a few remarks by way of discussion of his paper. I have however no theories to offer. A few evening ago I took the records of the hospital with which I am connected, and carefully went over all those cases in which the curves were recorded in malleable lead. I have the record of 106 cases of caries of the vertebræ which have been under observation for periods, varying from two months to five years.

In one case the disease was situated in the cervical region alone, and there was no increase after nine months.

Only one where cervical region is involved at all, and after three months observation there was no increase.

The disease in 68 of these cases was situated in the dorsal region alone; in 11 cases in the lumbar alone; and in 25 in the dorso-lumbar.

8 of these cases were under observations 2 months, (one decreased,) 5 were under observation for 3 months; 6 for 4 months; 3 for 5 months; 11 for 6 months; (1 decreased); 1 for 7 months; 7 for 8 months; 3 for 9 months, (1 decreased); 4 for 10 months; 14 for 1 year; 4 for 16 months; 7 for 18 months; 1 for 21 months; 14 for 2 years; 3 for 2½ years, (1 decreased); 2 for 3 years.

In 92 of these cases there was no increase, and four of them decreased.

It will thus be seen that, of the above cases, 30 were under observation for periods varying from 2 to 6 months; 10 from 6 to 9 months; 18 from 9 to 12 months; 26 from 1 to 2 years; 4 cases from 2 to 3 years.

Of 52 cases which were under observation for more than 9 months, 14 showed an increase from  $\frac{1}{8}$  to  $\frac{1}{2}$  of an inch; of these, four were increased  $\frac{1}{8}$  of an inch; one of this four, was a case in which the mother insisted upon keeping the brace loose. In another the increase took place in the fourth month, in which month paraplegia occurred preceded by a bronchitis which was treated at home and the brace was not worn constantly on that account. *Another* attended very irregularly coming once in four or five months, and the brace was invariably found out of repair. Finally the patient was threatened with refusal of treatment if not regular in attendance. He never came again. The fourth failed to come when directed and, as the brace intended for this case had been given to another, a poorly fitting apparatus was applied, and while wearing this the increase took place.

Six cases increased one-fourth of an inch. The first of these would not attend as directed and the brace was not worn constantly, and after a while the brace fitted poorly. The second case had an ill-fitting brace, the proper one having been mislaid when left for repairs. The third was irregular in attendance, coming once in six months forfeiting treatment thereby. The fourth scarcely ever attended and the mother would remove the brace whenever the child wished it. The fifth was irregular in attendance, though the increase most likely was due to the locality of the disease, viz.: in upper dorsal region—a place hard to manage by any form of apparatus. Increase in the sixth case was due to the intercurrent diseases and difficulty of wearing apparatus.

Two cases increased  $\frac{3}{8}$ th of an inch. One of these was neglected by the mother and no attention given to the brace—besides fitting badly as it began to wear out; *the other* had herpes zoster—when the brace was not worn—child also irregular in attendance.

Two cases were increased  $\frac{1}{2}$  an inch; one of those was very irregular in attendance. Had pneumonia and bronchitis when brace was left off. The disease here was in the upper dorsal region. The other had repeated attacks of bronchitis and the brace was not worn during the attacks.

I believe there is only one apparatus useful in cases of disease of the spine, and that is what was once called in this room, the 42nd st. crib, but we should be complimented by the name, as the crib is an article that is found in every household and is the delight of every mother. It consists of a steel frame with three horizontal bars; one extending from axilla to axilla over the posterior portion of thorax, the second from a point just above crest of ilium one side to a corresponding point on the other, the third from a point just above great



trochanter one side to a corresponding point on the other. These are connected by four vertical bars of light steel; one from axilla to trochanter, each side, and the remaining two on either side of the spinal column about two and one-half inches apart. This frame is made to fit the form, accurately covered with soft leather and fastened in front by heavy muslin or linen in the shape of corset fronts. The shoulder-straps extend from axilla to top bar behind, and are to assist in fixation. This apparatus holds the body in an erect position and no prominence can take place. All that we can hope to do in these cases, is to gain ankylosis as soon as possible, and that is done by this instrument. Some claim that the protrusion can be reduced and even motion obtained in the diseased joints, but I think it is impossible.

Dr. Wyeth's apparatus meets some indications and may prove useful but I agree fully with Dr. Hamilton as to the inadvisability of extension. The statistics that I have given you are all from dispensary practice and perhaps may not prove much, as any one who knows what dispensary practice in New York is, knows how difficult it is to keep track of patients and get them to carry out your directions.

#### DR. NEWTON M. SHAFFER'S REMARKS.

(Revised by the Speaker.)

I regret that I was not in the room when Dr. Wyeth's paper was read, but as I was not I am of course unable to discuss it. I have very little to say however, as on a previous occasion I fully expressed my views before you, on the points concerned. I can see some points in favor of the apparatus, but Prof. Hamilton has in the main expressed my opinions. For my own part, in the treatment of this disease I prefer an apparatus that we can keep entirely under control, such as the antero-posterior apparatus of Dr. Davis or Dr. Taylor. At the time I read my paper here I expressed my views regarding the plaster-of-Paris jacket and I have had no occasion since then to change them.

There was one thing recalled to my mind by Prof. Hamilton's remarks, and that is, that I have never in any case, seen after suspension the slightest alteration in the spine at the point of the pathological curvature. The only thing that occurs is a straightening of the compensatory curves. I see that some of the German surgeons, Langenbeck and others, have resorted to the plan of putting the patient under ether, and forcibly straightening out the diseased portion before applying the plaster jacket. This must be, however, a very dangerous procedure.

#### DR. LEROY M. YALE'S REMARKS.

(Revised by the Speaker.)

Every one who has to deal much with Pott's disease must feel very grateful for any improvement in our methods of treating that affection. I shall take as my text one of Dr. Wyeth's aphorisms.

Continuous extension in Pott's disease (in itself a joint affection) is as essential as in the treatment of the diseases of the knee, hip, or other joints.



I think it is not altogether true for these reasons. The joints of the vertebral column are joints technically speaking, but they lack elements necessary to make up a composito joint. The sacro-iliac joint and the pubic symphysis are the seat of disease, but they do not need continuous extension.

I have on previous occasions, when speaking of fixations, said that continuous extension was a better method of obtaining complete fixation than any other. It prevents muscular motion and attrition of the joint surfaces. From clinical and a priori reasons this is not likely to occur. I put traction on a hip or knees to meet another indication, nocturnal spasms; in spinal disease we do not find this, therefore it is not so necessary. In spinal disease we would have to use double traction or *distraction* as our German friends call it. It is clearly necessary in disease in the members, but I do not feel that in Pott's disease anything more is necessary than fixation. As to the particular method to be employed, I have no choice, it must vary with the case, the circumstances of the patient and various other things.

Dr. Wyeth's second aphorism, is:—The plaster jacket as now used and all other methods fail to meet the indications for the cure of the deformity with the cure of the disease, and often fail to cure the disease.

I have had the good luck to have under treatment a case in which the kyphosis disappeared, I saw the case very early, and after six months there were no longer any symptoms, and to my great surprise the kyphosis disappeared. When we recollect what a disease caries is in an ill-conditioned patient, I doubt if there be any apparatus that will ensure us against misfortune. I hold that a certain per centage of all cases will prove too much for our surgical skill. This apparatus may be useful when the kyphosis is in the middle of the back, but otherwise, as Dr. Hamilton observed we will get no improvement.

#### DR. ALFRED C. POST'S REMARKS.

There is one question I would like to ask, Dr. Wyeth spoke of the plaster becoming soft and movable from absorption of moisture from the skin. Is there sufficient moisture from the skin to do this?

Dr. Wyeth replied that there was considerable moisture from the skin, especially in warm weather but there was also considerable muscular exertion, and from one or both causes the plaster jacket becomes relaxed and loses its tightness and adaptation. My apparatus overcomes this difficulty and keeps up the fixation.

#### DR. A. B. JUDSON'S REMARKS.

I have very little to say on the subject. I would like to mention however that Dr. Edmond Andrews has described and figured in the Chicago medical examiner an apparatus for extension in Pott's disease. He uses not the plaster-of-Paris but the application of adhesive strips around the shoulders.

#### DR. J. C. HUTCHINSON'S REMARKS.

On being called upon Dr. H. said I had the misfortune to get in late, and did not hear the paper, so can not discuss the paper nor the general subject. I agree in the main with the views of Prof. Hamilton.

## DR. WYETH'S CONCLUDING REMARKS.

It would scarcely be possible to found a dynasty with one subject, nor can I hope to secure full recognition of a new principle in surgery, however plausible in theory it may be, which has for its foundation, success in a single instance. I have been pleased with the frank and critical tone of the discussion by these distinguished gentlemen. Upon one point, we all agree, viz: that *fixation is essential to success*. Then that method which secures *fixation* best must be most successful. Should we exclude the idea of *extension* as applied to the spinal column, (which mind you I do not yield) then I claim, that the "Double Plaster Jacket with continous extension" so arranged, that it envelopes the entire trunk, pressing equally upon all portions of the surface and that any relaxation of the support and *fixation* it gives, can be regained by the simple mechanism of *instrumental extension* which it affords, must enforce *fixation* best, and thus meets most fully the *indication* recognized by these gentlemen.

My friend Prof. Hamilton argues that "the edges of the latissimus dorsi and pectoralis major form the point of resistance," to my extension. It is not only these muscles, but the projecting scapulæ with their thick muscles which offer resistance from above, a resistance which is best appreciated when it is remembered, that these bodies are prevented from extensive upward displacement by the rhomboidei muscles behind and the pectoralis minor and major in front.

Prof. Yale says in his argument against the theory of extension as applied to the vertebral column, "the joints of the vertibral column are joints technically speaking, but they lack elements necessary to make up a true joint. The sacro-iliac joint and pubic symphysis are the seat of disease, but they do not need continuous extension." These last two joints are either wholly immovable or so nearly so that they have *fixation and rest* to start with in disease, and are practically insusceptible of *extension*. But they are not at all comparable to the vertebral articulations, nor do these lack any elements of true joints excepting synovial membranes. It seems to be forgotten that one-fourth of the entire length of the spinal column, excluding the axis and atlas, is made up of the intervertebral discs, which possess so much elasticity in their structure that when removed from the body they expand to twice their original thickness—must they not then be susceptible of extension? In conclusion, while I still maintain that *extension* is practicable and beneficial in Pott's disease, I believe that it is only a very slight degree of extension which is possible or safe between any two vertibræ, but that this slight *extension* and separation, can and should be continuous, holding the diseased surfaces apart, rendering the reparative process more rapid and aiding as much as instrumentation can aid, in the obliteration of the deformity with the cure of the disease.



## NEWS ITEMS AND NOTES.

The Discussion of the Treatment of Pott's Disease before the County Society.—We think no apology to our readers is necessary for having taken up the greater part of this number with Dr. Wyeth's paper, and the interesting and valuable discussion thereon. We have taken pains to have the remarks of the participants in the discussion reviewed by the speakers, so that no one might be misrepresented. We take it that the value of such an important series of papers is at least equal to that of the usual amount of varied matter given to our readers.

Thumb Sucking and Irregular Teeth.—Dr. Chandler, in a paper published in the *Boston Journal*, Aug. 15, states that there is no cause so productive of malformation of the bones of the mouth and irregularity of the teeth as the habit of thumb-sucking during infancy, the different positions of the thumb giving rise to different kinds of deformity.

The Jonah Adventure Reversed.—Surgeon Dautra relates (*Indian Medical Gazette*) that he was called to a man said to be dying of suffocation, and whom he found in a fearful state of agony with a live fish, which had entered his mouth while swimming, about three inches in length and one in breadth, lying on the dorsum of the tongue, his mouth also being filled with clots of blood. Attempts had been made to pull it out by means of dressing forceps, but these slipped off, only bringing away a few scales. On examination it was found that the fish had caught a firm hold of the patient's uvula, which it was induced to relinquish on its head being seized by a forceps and pressed from side to side. When it had let go its hold it was easily drawn out, and lived for some time after its extraction. There was little subsequent hemorrhage, the blood in the mouth having chiefly come from the surrounding tissues injured by the expanded fins. The uvula itself was bitten, not torn, as it would have been had traction been made before releasing it from the mouth of the fish.

Very True.—Mr. Gough, in a lecture in England, referring to the question whether alcohol is a food or medicine, remarked that in his opinion "it is very much like sitting down on a hornet's nest, stimulating, but not nourishing."

A new Medical Journal to be styled "The Medical Bulletin," is to be started by the Jefferson College Quiz Asso. of Philadelphia, on February 1st. The Bulletin will begin as a quarterly, and will be distributed gratuitously among the students of the Jefferson and University Medical Schools.

Charlatanism in Bavaria.—Quacks seem to flourish in Bavaria. Statistical tables have been drawn up to ascertain the exact number of them, which is not fewer than 1,563 for the last year. The greater part of these quacks are barbers; farmers are a little fewer in number; so are priests. In some parts of Bavaria, these unqualified practitioners have even superseded the professional men.



# THE HOSPITAL GAZETTE

AND

## ARCHIVES OF CLINICAL SURGERY.

A WEEKLY JOURNAL OF MEDICINE, SURGERY AND THE COLLATERAL SCIENCES.

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### LECTURES.

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#### SOME FORMS OF MUSCULAR RHEUMATISM AND THEIR TREATMENT.

A Lecture Delivered before the Medical Class of the University of Pennsylvania.

BY

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[Reported for THE HOSPITAL GAZETTE.]

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#### LUMBAGO.

This is always a distressing kind of disease. In its chronic form it is very commonly seen in persons obliged to labor constantly in the open air in all sorts of weather and in a stooping posture. It is brought on by violent muscular exertion, which weakens the muscles and so renders them more susceptible to the effects of cold. This condition of weakness on the part of the muscles predisposing them to the influence of cold must not be confounded with laceration of the muscular fibres. Where the muscular fibres are lacerated the case is not one of lumbago. Lumbago is a very frequent result of exposure to drafts of cold air and often follows lying on damp ground in summer time.

In lumbago, as a general rule, the muscles on both sides of the spine are affected. I have seen cases, indeed, where only one side was affected but as a general rule where the pain is only on one side you have *prima facie* evidence that the case is not one of lumbago. The pain of lumbago is always very great and is much exaggerated by movement. The character of the pain is different in different persons; it may be lancinating, or tearing, or boring, or grinding. The pain may be limited to the affected muscle itself or may be caused to extend to surrounding parts by pressure made upon the nerves.

In every position which a patient suffering from lumbago assumes the pain is likely to be severe except in one of the two positions

which such a patient always adopts, namely, the sitting posture, leaning forward over the back of a chair, etc., or lying flat on the back.

Of course an attack of lumbago always begins acutely, and lasts for but a few days if properly treated. Neglect, however, to treat such an attack, and the disease becomes chronic, and the suffering consequent upon the condition hardly ever stops until the weather changes. Once present the disease is apt to return at any time under the influence of the original causes.

The diagnosis of lumbago is not always easy to establish. The pain in the muscle may be due to nervous causes, may be a consequence of fevers, may be present where a womb is engorged and displaced. It is found as an accompaniment of scurvy, or of psoas abscess, or of aneurism of the abdominal aorta, or in kidney diseases. How is the pain of lumbago to be distinguished from the pain present in all these various affections. In all of the diseases, except the first, lumbago, the pain is essentially chronic. In acute lumbago the attack may, in nearly every instance, be attributed and traced directly to its cause. In fevers, etc., there are almost always other symptoms to be noted.

Chronic lumbago has, of course, been preceded by acute lumbago, or at any rate the cause of the attack is usually discoverable. In other diseases peculiar symptoms will be found.

Another very excellent point of diagnosis is the fact that in lumbago the pain in the limb is always excited by contraction of the lumbar muscles. This is not so where the pain is due to other causes and affects both sides. In psoas and kidney abscess the pain is present upon movement, but is deep and dull, while in acute lumbago the pain is acute and is produced by the contraction of the lumbar muscles.

The treatment of the acute form of lumbago is very simple and very effective. Perhaps the best treatment at first is the application of scarifying cups to the muscle, or muscles affected, to be followed immediately by narcotic fomentations in the shape of a bag of hops soaked in hot water, hot vinegar, or alcohol and applied directly over the scarified parts. There are various stimulating and anodyne liniments which are really excellent in their way—such as turpentine, ammonia, camphor, etc. If opiates are to be employed they should be administered early in the course of the attack. The best form in which to administer opium is in the shape of Dover's powder. This may be given in ten grain doses. It is usually very efficient in affording relief to the pain and at the same time is very likely to produce copious diaphoresis. Where a rapid effect is desired the opium must be given hypodermically in the shape of morphia.

In most of the cases of lumbago which are encountered in private practice the patient will be found to object seriously to the use of scarifying cups unless all other remedies are found to be in vain. In fact, you will most of you find in time that the use of this most excellent remedy must be limited to hospital and dispensary cases. Where scarifying cups cannot be employed the best treatment is tha



by morphia hypodermically, and Dover's powder by the mouth. (In the University Hospital the great pain accompanying lumbago is at once and very often permanently stopped by the hypodermic injection into the affected muscle of a solution containing one-eightieth of a grain of atropia and one-eighth of a grain of morphia. Great care being always had in the administration of morphia and atropia to nursing women, as belladonna is the most powerful antigalactagogue known, and as too large doses of morphia not infrequently affect the child through its mother's milk.—REP.)

Another most valuable drug in the treatment of lumbago is the iodide of potassium which would seem to be clinically proven to have a peculiarly beneficial influence over rheumatism of the lumbar region—more influence over this form of rheumatism in fact than over any other. Dr. Graves, of Dublin, is the first one reported to have made use of iodide of potassium in lumbago and he tried its effects upon his own person. He found that in doses of from five to ten grains given every three or four hours, its effects were truly wonderful.

This clinical fact—I refer to the peculiar influence of the iodide of potassium upon rheumatism of the lumbar muscles—is very difficult of explanation, but it is undoubtedly true. The iodide has been tried in the treatment of muscular rheumatism of other parts of the body and its effects in such cases have been found to be not by any means so immediately successful.

In the chronic form of lumbago the condition is one of great obstinacy and is very difficult to treat. Such cases are very apt to persist in disappointing your hopes of cure. The most useful class of remedies here are of course the various forms of counter-irritants, such as blisters, sinapisms, the actual cautery, etc., etc. Thoroughly and conscientiously applied local friction and *massage* may do good in some instances where counter-irritants have signally failed.

Of all remedies, however, for chronic lumbago, I am accustomed to rely mostly upon the influence of tepid water upon the affected parts. The action of water, though slow, is a very permanent one. The water may be applied either in the shape of wet compresses kept in constant contact with the part, or you may use a douche and allow a stream of water to fall steadily upon the rheumatic muscles for some time from a height of from eight to ten feet. This use of water does great good in all forms of muscular rheumatism no matter where located. After the treatment by douche, or by wet compresses, the parts should be briskly rubbed with a coarse cloth or a skin brush, and then covered with cotton, or wool, or a piece of India-rubber cloth.

I have occasionally derived very advantageous and rapid results from the use of a metallic brush, rubbing the affected part briskly with it. This rubbing acts of course as an electric stimulus, and always gives immediate, if not permanent relief, though my experience has been that the use of the electric brush afforded permanent as well as immediate relief.

Very often I advise tying a cloth over the lumbar muscles and ironing them thoroughly, two or three times every day, and then following up the ironing with the application of some stimulating liniment.



If a person is subject to attacks of lumbago he should of course protect the parts by wearing constantly a Burgundy pitch plaster, or perhaps better still, a plaster that has lately been patented—I refer to the various makes of porous plaster. These plasters act in two ways, first by protecting, and secondly by affording constant mechanical support to the affected muscles.

I think that I have already pointed out to you the most important remedial measures generally employed, but before closing I must not forget to tell you that guaiacum sometimes does great good. So, too, with regard to bezerium. Sulphur also is occasionally used with much benefit in the shape of sulphur baths, or sulphur water by the douche. Many recommend highly the continuous use of sulphur waters internally, or again, sulphur powder may be quilted in between two cloths and these kept in constant contact with the loins.

The treatment of chronic lumbago, if it is to be at all successful, must be constantly changed.

#### RHEUMATISM OF THE DELTOID.

There is hardly any muscle in the body which may not be affected by rheumatism. One of the most frequently attacked is the deltoid. The corresponding muscles of the thigh are not often affected. When the deltoid muscle is rheumatic the arm of the affected side is carried folded across the breast and supported by its fellow.

Rheumatism of the deltoid is said to occur more frequently in females than in males because the former sex is so constantly changing its mode of dressing. This is one of those cases which shows how closely disease is connected with the whims of fashion.

I am not so sure that our American women are more subject to rheumatism of the deltoid than the men, but there can be no doubt about the truth of the statement in England. In Great Britain you no doubt know that the fashions run in the direction of very low-necked dresses for the women. *Punch* is constantly taking off this custom in its cartoons. Such being the state of affairs and the climate of England being noted for its dampness and chilliness, is it any wonder that the deltoids of the English ladies are the seat of constant rheumatic twitches—going to parties and balls in low-necked dresses at midnight, as they do, and leaving late in the morning, and while they are at these parties hurrying backwards and forwards incautiously from heated rooms to cold halls, and spending the larger part of the early night in a constant state of draft. Certainly all this accounts for the statements of English writers regarding rheumatism of the deltoid.

#### RHEUMATISM OF THE MUSCLES OF THE SCALP.

This is very commonly met with in this country, but is much more common in England, the land of rheumatisms. Baldness, of course, exposes its subject to rheumatism in damp and chilly weather, and I do not believe that there is any country in the world which possesses more bald men within its boundaries than this same England. I remember many years ago attending the services at one of the great London churches and being struck as I sat in a back pew with the

vast preponderance of bald-headed men in the audience. It seemed to me that every man in front of me was bald, at least on the top of his head.

Rheumatism of the muscles of the scalp is a very painful disease. The occipito-frontalis muscle of one or of both sides of the scalp becomes intensely sensitive to the touch. Brush and comb are utterly out of the question—a strong breath of air is almost enough to cause agonizing pain.

#### RHEUMATISM OF THE ABDOMINAL MUSCLES.

This is not common, but when it does occur is often confounded with acute peritonitis, which latter disease is at least excessively rare, if it ever does occur in the adult. Rheumatism of the abdominal muscles is not by any means so rare as acute peritonitis. I can recall to mind the first case of the kind which occurred in my own practice—it was that of a young lady. When I first saw her I was convinced that her disease was one of peritonitis connected with some ovarian difficulty—she was suffering from a considerable amount of dysmenorrhœa. The amount of perplexity which the study of her case involved was truly wonderful, until I at last discovered that there was nothing in the world the matter with her but some rheumatism of the abdominal muscles.

This sort of rheumatism, like most other forms, is the cause of much pain. The very slightest movement will bring it on—movement, that is of the muscles themselves, for there is no pain excited by pressure upon the abdomen, and this is, perhaps, as good a way as any of distinguishing rheumatism so located from acute peritonitis in the adult.

Another diagnostic point of value may be found in the fact that vomiting is almost always present in peritonitis together with abdominal distension; whereas the abdomen is more or less contracted as a general rule where its muscles are rheumatic, while vomiting is never a symptom, nor is there ever the fever and general prostration which accompany peritonitis.

#### OTHER FORMS OF MUSCULAR RHEUMATISM.

Wherever muscles are present in the body there also may we find muscular rheumatism. All the muscles, muscles of special sense as well as muscles of organic life, are liable to be affected. One or more of the muscles of the eye are quite frequently the seat of rheumatism, particularly is this the case in persons suffering from syphilis.

Then we may have rheumatic laryngitis, or bronchitis, or pharyngitis. Quite rarely the diaphragm is the seat of rheumatism. This last is a most distressing condition. The breathing is most laborious, the external muscles of respiration alone being employed in the act. Hence, in inspiration the abdomen is drawn in instead of pressed out.

The treatment of all these local forms of rheumatism is in general essentially the same as that for lumbago.



CLINICAL REMARKS ON CONTRACTED MEATUS AS A  
CAUSE OF GLEET AND RETENTION OF URINE.

BY

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(Reported for THE HOSPITAL GAZETTE.)

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GENTLEMEN: In pursuance of the plan adopted at the beginning of the session, I shall not hesitate to depart from our systematic course, for the time being, whenever a case of unusual interest comes before us, as in the present instance, out of that line. I now ask your attention for a few moments to the consideration of such a case.

The patient has been sent here by Prof. Agnew from the Ophthalmic Hospital, where he has been suffering from some affection of the eyes, and where some urethral trouble was also suspected. He now states that he had an attack of gonorrhœa eighteen months ago; that this was followed by a gleet, which has continued up to the present time. Moreover, about three months after the acute gonorrhœa he began to be troubled with incurvation of the penis; which also, like the gleet, continued up to the present time. This is an interesting fact, for it shows that persistent incurvation occasionally occurs as a result of gonorrhœal inflammation. It is also a fact that it sometimes follows the operation of internal urethrotomy; and this has been adduced as an objection to the procedure. It is a matter of very little importance, however; for in the rare cases where it presents it passes away spontaneously after a time. But, in low grades of inflammation about the urethra resulting from stricture, incurvation not infrequently continues for years. It is important, too, to know, that cases of apparently permanent incurvation have been completely relieved by this very operation of internal urethrotomy; which in certain instances gives rise to temporary incurvation. But to continue the history of the present case. About four months ago the patient suffered from a retention of urine, which continued for twenty-four hours. Now in the minds of most surgeons this difficulty is associated only with close stricture of the urethra; but in reality it is not infrequently due to other causes, such as spasm, and especially to a variety of spasmodic action to which I will presently call your attention. On careful inquiry I cannot discover that the patient had either been drinking freely, had taken cold, or had been obliged to refrain from urinating for a longer period than usual, at the time the retention occurred. Enforced abstinence from urination is sometimes a cause of retention, especially in sensitive and nervous individuals; and it seems to be an aggravated form of the same sensibility which makes it difficult for such persons to go on with the evacuation of the bladder when the act of urination has been suddenly interrupted.

Organic stricture might reasonably be looked for in cases like the present, previously the subject of gonorrhœal inflammation. This condition is often provocative of spasms producing sudden urinary



retention. It is then important to ascertain whether the trouble has arisen from the organic contraction or from spasm caused by irritation reflected from some distant point. To settle this question, a careful exploration of the urethra becomes necessary. This I shall now proceed to make.

The first thing that we notice about it is that the meatus urinarius has here been enlarged to some extent by incision, and the patient tells us that for some time after the retention, which was relieved by catheterization, it was deemed necessary, occasionally, to introduce a sound.

Before going any further we will ascertain the exact circumference of the penis. This is found to be a little more than three and a half inches. Accepting the definite relation between the size of the penis and that of the normal urethra, we should expect that a number 35 sound of the French scale, could be passed without difficulty. As an actual fact, however, it is ascertained that the meatus, notwithstanding that it has been somewhat enlarged by incision, will admit only a number 28. Here, then, is a condition which of itself is sufficient to account for all the trouble from which the patient has suffered. I therefore proceed to divide the meatus to such an extent that it will correspond with the canal behind it. If then a number 35 sound passes into the bladder without obstruction, we can exclude the supposition of organic stricture altogether. This incision, I may say in passing, is in my opinion absolutely essential for the cure of the gleet which has so long existed in this case. Having now enlarged the meatus, I find that a number 35 can be introduced into the bladder without force, and, therefore, we are justified in pronouncing the urethra entirely free from stricture. I present this case, then, as one more in evidence of the proportional relation existing between the diameter of the penis and that of the urethra. Here there has been absolutely no stricture along the course of the canal, and the source of trouble has evidently been the abnormally contracted meatus. The orifice had been previously incised, but it was not divided sufficiently. Now, however, we have restored the urethra to its normal size. This in all probability will result in the cure of the gleet, and at the same time protect the patient against retention of urine in the future. The lesson that I would have you especially learn from this case is that retention of urine not infrequently occurs as the result of a reflex irritation caused by contractions at the meatus when there are no other strictures whatever. The incurvation in this case has evidently been due to plastic exudation into the meshes of the strong urethra on the superior surface alone. Had this exudation surrounded the urethra it would have interfered with the distensibility of the urethra at the point and would have been recognized in the attempted passage of a full-sized bulb.

## HOSPITAL RECORDS.

## BELLEVUE HOSPITAL, NEW YORK.

Reported by F. HOCHREIMER, M.D., House Surgeon.

## INFANTILE PARALYSIS.

Mary K., aged 2 years, was admitted Oct. 27th, 1878. She was a foundling and had been in the care of some persons who had neglected her so that when admitted she was too weak to stand. She had whooping-cough, but otherwise seemed to be well, up to 1 P. M. on the day of admission, at which time it was noticed that she became blue, and had muscular twitchings on the right side, more marked in the arm than in the leg. When brought in at 5 P. M. the child lay in a semi-comatose state with eyes open and eyeballs turned to the right; the left pupil was dilated. The pulse was full and very rapid; the respirations were frequent and irregular; *temperature was 108°*. There were involuntary movements of the right arm, consisting of alternate flexion and extension. Rales of general bronchitis were heard over the chest. The abdomen was tympanitic, the bladder distended.

She was put into a bath of a temperature of 90°, gradually reduced to 75°, and kept there for fifteen minutes; twenty minutes after the bath her temperature was 100°; the restlessness was much diminished, and the muscular contractions were much less violent. The chest was poulticed and covered with an oiled-silk jacket and small doses of carbonate of ammonia and brandy were frequently administered; 3 grs. of quiniæ sulph. ordered every 6 hours.

The urine was passed after pressure upon the bladder. During the night she had six passages from the bowels, consisting almost entirely of undigested food—meat, cabbages, and potatoes. At 8:45 P. M. the convulsive movements ceased and instead she showed *paralysis and anaesthesia of the right side*; the eyes were turned to the right and both pupils dilated. During the night several threatened attacks of oedema of the lungs were warded off by dry cupping. Ice was applied to the head to lower the temperature, which averaged 104°.

Oct. 28th.—Temperature from 1:30 A. M. to 5:20 P. M. ranged at about 101¼°. At 7 P. M. it fell to 97¼°. She was very restless during the day, sleeping but little; there was no movement of the right side; she passed urine normally and freely. There were several discharges from the bowels of the same character as yesterday; this morning she vomited undigested food and mucus.

Oct. 29th.—Temperature 100¾°. Has had several passages from the bowels, containing mucus. Was quiet during morning but became restless, the restlessness increasing until 1:45 P. M. when her temperature was 103½°; she had slight twitchings of the right side of the face in the morning and slight convulsive movements of the right side in the afternoon.

Her condition continued unchanged for the next three weeks; she



was put upon a diet consisting principally of milk, but the diarrhœa persisted in spite of opiates and astringents. Her appetite had returned and indeed became ravenous.

*Nov. 17th.*—Milk was stopped and she was put upon a diet of Horlick's food, prepared with water, chicken-broth and beef-tea. After this she began to mend slowly, the diarrhœa became less and finally disappeared; she began to gain flesh and her general condition was much improved.

*Dec. 1st.*—There was still complete paralysis of the right side; the Faradaic current was applied every other day. Under its influence the right lower extremity has improved so that now she has considerable control over it; the right arm is emaciated and powerless, and there is still paralysis of the right side of the face.

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### PERISCOPE.

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## GLEANINGS FROM OUR FRENCH AND GERMAN EXCHANGES.

BY

JNO. A. WYETH, M.D.

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### SKIN GRAFTING EN MASSE.

At the sixth congress of the German Surgical Association, Dr. Von Zehender presented a case of a boy, 5 years old, upon whom he had operated for an *ectropium*, involving both upper eyelids, resulting from ulceration of supra-orbital structures, due to caries of frontal bone. A piece of skin 6 centimetres long and 3 cm. wide ( $2\frac{3}{8}$  by  $1\frac{1}{8}$  inch) was removed from the upper arm, the subcutaneous areolar and connective tissue carefully scraped off, until it was smooth, thin and flexible like glove leather. This was then laid upon the clear granulating surface of the eyelids, and the eye was closed for four days by five cat-gut sutures passed through the edges of the lids. The transplantation was entirely successful. While usually taught that sections of skin for grafting should not exceed one square centimetre, this piece contained eighteen square centimetres.—*Centralblatt für Chirurgie*, Dec. 1878, p. 880.)

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### IODOFORM AS A LOCAL APPLICATION IN SYPHILITIC ULCERS, &c.

Dr. Mracek, of the Vienna General Hospital, recommends the following combinations of iodoform for local use in syphilitic ulcers, mucous patches, gumma, ulcerations, buboes, &c. *R.* Iodoform, spirits vini., of each 1 part, glycerine 5 parts. *R.* Iodoform 1, vaselini ung. 5 parts. Make a salve. *R.* Iodoform 1, ether 10 or 15 parts (colloidion). *R.* Iodoform 1, sacch. alb. 3 to 4 parts. Make powder. After applying either of these formulæ the surface is covered with a pledget of lint, held in place by an adhesive strip. The dressing remains 12 to 24 hours. The smarting ceases in a few minutes; in 3 to 4 days granulations spring up and in 6 days cicatrization is established.—*Wien. Mediz. Wochen*, 1878, No. 27. *Ibid.*



DR. DOUTRELEFFONT—RADICAL CURE OF REDUCIBLE INGUINAL HERNIA, WHICH COULD NOT BE RELIEVED BY WEARING A TRUSS.

Labourer, 22 years of age. Hernia, large as goose egg, right side. Disqualified for work. Treated long time by dorsal decubitus and pressure without benefit. Operation. Hernial sac closely adherent to spermatic cord and scrotum, although neck of same was movable at the internal ring. After returning gut, a strong catgut ligature was tied around neck and the sac dissected out. Lister dressing. Highest temperature on evening of second day,  $38.8^{\circ}$  C. ( $102^{\circ}$  Fahrenheit.)

On 14th day patient was able to wear truss. Recovered. Cured. —*Central fur Chir.* No. 52, p. 888.

OPERATION FOR RADICAL CURE OF REDUCIBLE INGUINAL HERNIA. RECOVERY.—BY DR. WEIL.

Hernial protrusion large as child's head. Incision 7 cm. ( $2\frac{3}{4}$  inches) over neck, under Lister spray. After reduction of the contents, the sac was tied at the neck by a strong carbolized silk ligature, and the pillars of the external ring were stitched together. The sac was then freely opened, washed out with carbolic acid, and two tubes inserted to secure free drainage. Recovery in four weeks. —*Prager Med. Wochen.*, 1878: No. 43, *Centralblatt fur Chir.*, No. 32, p. 885.

DR. NIKOLAIDONI—CASE OF A YOUNG GIRL WITH GENERAL OSSIFICATION OF THE MUSCLES.

Patient 7 years old. Symptoms dated from time she was one year of age, beginning in the muscles of the neck and spreading into the adjacent muscles of the back. Two hard columns indicate the course of the *sacro-lumbalis*. Through ossification of the sub-scapular muscles the scapulae are immovably fixed to the thorax. In the upper portion of the *deepi brachii* and *sterno-mastoideus* as in almost all the muscles small points of ossification are recognizable.—*Wien. Med. Woch.*, 1878, No. 21. *Centralblatt fur Chir.*, 1878, No. 52.

DR. MAC EWEEN—LIGATURE OF COMMON CAROTID ARTERY—ANEURISM—CHROMIC ACID CATGUT LIGATURE.

Patient, man 45 years. Thirteen years previously had syphilis, and in last eight months difficult deglutition, pains in neck, right ear, and forehead. Seven weeks ago a swelling appeared in left side of neck, which grew rapidly in last two weeks, filling superior carotid triangle and involving probably the bifurcation of the com. car. Operation after Lister. Pulsation in aneurism ceased entirely on application of ligature and never returned. Ligature which had been soaked in chromic acid and glycerine proportions not given remained in wound unaltered for four weeks; at end of sixth week it began to turn white and came away.—*Centralblatt*, 1878, No. 52.

### BENEFICIAL EFFECTS OF BLOOD LETTING IN PULMONARY TUBERCULOSIS.

A young woman was admitted into the hospital suffering from intense pain in the lung in the right subclavicular region. All the symptoms pointed to tubercular deposit. Respiration was considerably disturbed, and pain was so acute as to prevent sleep. Moisturales. M. Peter applied six cupping glasses over scarifications at seat of pain. The pain immediately disappeared, respiration was freer, and patient slept well. M. Peter concludes that blood letting by cupping-glasses or leeches constitutes a good remedy for the relief of pain in tuberculosis. He does not, however, think it applicable in all cases, deeming it essential that the patient should be able to support this loss of blood without serious inconvenience. He thinks it especially applicable in the earlier stages.—*Gazette des Hopitaux*, Dec., 1878, p. 1180.

### CASE OF VAGINAL GESTATION IN A COW.

M. Macario presented before the medical society of Nice, this singular case. A cow, seven months after impregnation, was seized with efforts at expulsion. Vaginal examination revealed the uterus empty and firm and the vagina partially filled with a hard body adherent to its floor. By manipulation, conjointly with expulsive efforts on the part of the animal, the tumor was detached and delivered. It was nearly oval in form, smooth on its upper surface; the other portions covered with formations resembling cotyledons. On incising the mass, a foetal calf covered with hair, and about the size of a rat, was discovered surrounded by a dense liquid. The *os uteri* was firmly closed, showing that the gestation was proceeding in the vagina. M. Macario concludes that there had been an abortion of a fecundated ovum, which had lodged in the upper portion of the vagina, where it had contracted adhesions and absorbed nutrition sufficient for its slow development. This extra-uterine gestation would not have continued so long had its nutrition been more abundant—since then its more rapid growth would have caused its earlier expulsion. It seemed to be established that an abortion had occurred in the early steps of a normal gestation.—*Ibid*, p, 1180.

### ENORMOUS BILIARY CALCULI—EXTRACTION BY ABDOMINAL SECTION RECOVERY—DR. WANNEBROUCQ.

Patient a woman aet 72, robust; mother of 10 children. Ten years ago had peritonitis in right side. Another attack supervened, accompanied by vomiting, tympanites, intense fever, and shortly after a tumor as large as a foetus at term, developed, lying in the region between the umbilicus and the right anterior superior spine of the ilium—fluctuation—an explorative puncture gave vent to a quantity of phlegmonous pus. Eight days later opening was enlarged by sponge tent and drainage secured. Two months later it was necessary to re-puncture, when the bistoury encountered a large stone, which when extracted, weighed 30 grammes (462.96 grains).



The cavity was injected with chloral, and the wound closed by granulation. As there was no trace of bile in the liquid discharged from the sac, it was inferred that this calculus had escaped from the gall bladder by a slow inflammatory process which sealed the opening, as the stone escaped into the peritoneal cavity. That the excretory ducts of the liver had remained permeable was evident from the absence of jaundice. Other instances are recorded where the calculi were as large as hens eggs.—*Ibid*, 1181.

### ABOUT BOOKS.

*Structure of the Male Urethra ; Its Radical Cure ; By Fessenden N. Otis, M.D., 8 vo., pp. 350. New York, G. P. Putnam's Sons, 1878.*

When we first learned that Dr. Otis was preparing a treatise on urethral stricture we were lead to expect a work on this subject that would do credit to the genius and well deserved reputation of this distinguished teacher of genito-urinary diseases. But we are forced at the outset to acknowledge our disappointment. The volume before us is but a reprint of a number of lectures and articles previously published in medical journals or in pamphlet form, and either elucidating or criticising the authors method of dealing with stricture of the male urethra. It is, in fact, what its full title implies, an explanation of the author's views on the radical treatment of stricture, but as these have already been given to the profession, and as there is nothing new added in this volume, we fail to see the necessity of it.

We suppose that the majority of our readers are acquainted with Dr. Otis' views in regard to chronic urethral discharges. He believes that such discharges are always due to stricture, and that the only radical and rational treatment to be pursued is complete division of the stricture or strictures, so as to restore the urethral canal to its normal calibre, which he believes to be the same throughout; and the maintenance of the canal at this calibre by the passage of sounds, until the incised part is completely healed. Dr. Otis incises every stricture, even those of large calibre, and, believing that the canal should be the same size throughout, slitting of the meatus is practiced in almost every case. Indeed, this is done in many instances in order to afford passage to a sound of large size for the purpose of diagnosing strictures further on in the canal. Dr. Otis determines the normal size of the urethra by an ingenious instrument which he calls a "urethra-metre"—and the canal is incised until its calibre corresponds to the size indicated by this instrument. This practice, although endorsed by many prominent surgeons, is severely criticised by the majority of those who have given special attention to this department of surgery. Although firmly believing that Dr. Otis has, by his earnest enthusiasm, done more for the progress of urethral surgery, within the past few years than any living surgeon, still we think that his views are extreme, and cannot be accepted wholly on the



part of the profession. The greatest good which Dr. Otis' untiring zeal has produced is in establishing the fact that the urethral canal is of variable size and that the only proper and certain means of finding a stricture is by the use of the bulbous sounds. He has also demonstrated that the urethra is capable of sustaining a great degree of distention, which fact has been utilized by Dr. Henry J. Bigelow in his new operation of *litholapaxy*, which we believe would not be practicable had it not been demonstrated that the urethra would admit a sound or catheter of very large size. This, of course, is not the only essential part of the operation, but it is an all-important one, and we think that in this operation sufficient credit has been given to the indefatigable worker in the field of genito-urinary surgeon, who has been the pioneer in establishing this most important fact.

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### OBITUARY.

JOHN BARCLAY BIDDLE, M.D.

Dr. John B. Biddle, Professor of Materia Medica and Dean of the Faculty of Jefferson College, died on Sunday Evening, January 19th, at his residence, northeast corner of Seventeenth and Pine streets, Philadelphia, in the 65th year of his age. Dr. Biddle has been suffering from typhoid pleurisy, the result of a severe cold contracted about two weeks since, while on a visit to Girard College, of which he was an attendant physician. Deceased was born in Philadelphia, in 1814, and was a son of Clement C. Biddle, an officer in the military and naval service of the United States, and for a long period President of the Philadelphia Savings Fund. Dr. Biddle graduated in the Med. Dept. of the University of Pennsylvania and then visited Paris, where he received instruction from the best medical men of that city, and acquired that intimate knowledge of his profession which made his writings standard authorities, particularly his work on Materia Medica. Upon the death of Dr. T. D. Mitchell, in 1865, Dr. Biddle was elected to the vacant Professorship of Materia Medica in Jefferson College, a position which he has held continuously and satisfactorily up to the time of his death. Professor Biddle was also President of the Board of Directors of the County Prison, and physician at Girard College and the Institution for the Deaf and Dumb, as well as consulting physician at several charitable institutions, and in a number of intricate cases, his private practice being almost wholly of the latter nature. Professor Biddle was the elder brother of Chapman and George W. Biddle Esqs., the eminent Philadelphia lawyers. He leaves a widow and six children.

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### DR. MILLINGEN.

Dr. Millingen, the surgeon who attended Lord Byron in his last illness, died at Constantinople on the 1st of December. Dr. Millingen had written an account of his intercourse with Byron, which he intended to publish, but all his papers were burned in the great fire in Para in 1870, and he never rewrote his reminiscences.

## BULLETIN OF THE PUBLIC HEALTH.

Issued by the Surgeon-General, U. S. Marine Hospital Service, under the National Quarantine Act of 1878.

[No. 25. Week ended January 22, 1879.]

OFFICE SURGEON-GENERAL, M. H. S.

Washington, Jan. 22, 1879.

*Boston.*—Week ended Jan. 18th. Total deaths 157. Annual ratio 22 per 1000 of the population. There were 13 cases of scarlet fever and 4 deaths; 25 cases of diphtheria, 19 deaths; 26 deaths from phthisis, 20 from pneumonia, 7 from bronchitis.

*New York.*—Week ended Jan. 18th. Total deaths, 632. Annual ratio 30. 68 deaths from scarlet fever, 22 from diphtheria, 86 from phthisis, 82 from pneumonia, 42 from bronchitis.

*Elmira, N. Y.*—Month of Dec. Total deaths 52. Annual ratio 28. 27 deaths from diphtheria.

*Philadelphia.*—Week ended Jan. 18th. Deaths from all causes 361. Annual ratio, 21.5. Scarlet fever caused 6 deaths; diphtheria, 12 deaths; enteric fever 9 deaths; bronchitis 14 deaths; pneumonia 37 deaths; phthisis 60 deaths.

*Pittsburgh.*—Week ended Jan. 11th. Total deaths 69. Annual ratio, 25.4; 7 deaths from diphtheria, 1 from scarlet fever.

*Baltimore.*—Week ended Jan. 18th. Deaths from all causes 163. Annual ratio, 23. Scarlet fever caused 4 deaths, diphtheria 4, enteric fever 5, phthisis 15, pneumonia 24.

There were 30 decedents whose ages averaged 80 years; one of 113 years.

*District of Columbia.*—Week ended Jan. 18th. Deaths from all causes 71. Annual ratio, 23.7; 1 death from scarlet fever, 4 from diphtheria, 13 from pneumonia.

*Cleveland.*—Two weeks ended Jan. 18th. Total deaths 78. Annual ratio 19.2. 16 cases of diphtheria, 6 deaths,

*Chicago.*—Week ended Jan. 11th. Total deaths 148. Annual ratio 16.7; 6 deaths from scarlet fever, 9 from diphtheria, 7 from bronchitis, 14 from pneumonia, 15 from phthisis.

*Cincinnati.*—Week ended Jan. 11th. Total deaths 110. Annual ratio 20.5. 43% of deaths were due to zymotic diseases, scarlet fever causing 25.

*St. Louis.*—Three weeks ended Jan. 18th. Total deaths 344. Annual ratio 12.2; 36 deaths from phthisis, 47 from pneumonia, 4 from scarlet fever, 8 from diphtheria. In 1878 the rate of mortality was 12 per 1000 of the population.

*San Francisco.*—Week ended Jan. 10th. Total deaths 129. Annual ratio 12. Scarlet fever caused 5 deaths; diphtheria 7; phthisis 23; pneumonia 22 deaths.

*New Orleans.*—Weeks ended Jan. 12th. 124 deaths. Annual ratio 36.7. 5 deaths from diphtheria, 12 from phthisis, 12 from pneumonia.

*Havana.*—Week ended Jan. 18th. Yellow fever, caused 3 deaths, small-pox 9 deaths.

*Great Britain.*—Week ended Dec. 28th. There were 4,962 deaths in 23 large towns with an aggregate population of 8,374,000, an average annual rate of 31.

*London.*—Week ended Dec. 28th. Total deaths 1,900. Annual ratio 27.7. Measles caused 34 deaths; scarlet fever 48; diphtheria, 22; whooping-cough 62. Acute pulmonary diseases caused 634 deaths, small-pox 13 deaths; the number of cases of the latter disease has steadily increased during the past three months, 225 remaining in the hospitals on December 28th.

During 1878, there were 83,694 deaths in London, an annual rate of 23.5 per 1000, against 22.3 in 1876 and 22.9 in 1877. Seven principal preventable diseases caused 18% of all the deaths. Whooping-cough caused 4,446 deaths; diarrhoea 3,651; scarlet fever 1,792; measles 1,510; fevers 1,361; small-pox, 1,416; diphtheria 558.

*Dublin.*—Week ended Dec. 28th. Total deaths 238. Annual ratio 38. 4 deaths from scarlet fever, 5 from measles, 96 from acute lung diseases, 16 from phthisis, 19 from small-pox, making 550 deaths from the latter disease during the year 1878. 122 cases remained in the hospitals on Dec. 28th, but the number of new cases during the week had materially lessened.

*Galway.*—During the week there were 7 deaths from small-pox. Mortality rate for the week at Liverpool, 37; Manchester, 42; Birmingham, 33; Sheffield, 27; Edinburgh, 24; Glasgow, 36.

*Paris.*—Week ended Dec. 26th. Total deaths 938. Annual ratio 24.6. Enteric fever caused 20 deaths; diphtheria 14; small-pox 5.

*Vienna.*—Week ended Dec. 21st. Total deaths 389. Annual ratio 28. 31 deaths from diphtheria, 11 from small-pox.

*St. Petersburg.*—Week ended Dec. 21st. Total deaths 527. Annual ratio 41. 35 deaths from small-pox, 28 from enteric and typhus fevers.

*German Empire.*—Week ended Dec. 21st. In 150 cities and towns with an aggregate population of 7,435,324, there were 3,709 deaths, an average annual ratio of 26 per 1000 of the population. 47 per cent. of the deaths occurred in children under 5 years of age. Small-pox caused 1 death, 58 from measles, 87 from scarlet fever, 218 from diphtheria, 481 from phthisis, 482 from acute lung diseases.

*Calcutta.*—Week ended Nov. 23d. Deaths 407. Annual ratio 50. Cholera caused 21 deaths, fevers 204.

*Bombay.*—7 from cholera, 195 from fevers.

JNO. M. WOODWORTH.

Surgeon-General.

U. S. Marine Hospital Service



## NEWS ITEMS AND NOTES.

**Vulvar Pruritus.**—M. Marius Key recommends the glycerole of cade as a local application in the treatment of pruritus of the vulva. The formula he employs is one drachm of oil of cade to half an ounce of glycerole of starch. In combination with it he uses tonics, hip-baths, and emollient injections, to which laudanum is freely added. He has tried this treatment only once in a really rebellious case, but that time with success.—*Gaz. Med. de Paris.*

**Fatal Rectal Exploration With the Hand.**—*The Deutsche Med. Wochen* says: Daudridge and Comer examined the pelvis of a man by Simon's method, with a view to obtain accurate information concerning a psoas abscess. They assert positively no force was used, and that they did not go higher up than the bifurcation of the aorta. Immediately after the exploration, however, symptoms of peritonitis set in, and the patient died. At the autopsy a rupture of the peritoneum was discovered five inches above the anus. The mucous membrane was also torn above the sphincter. This is another case proving that Simon's method is not entirely harmless.

**Up in a Balloon, Boy.**—The *Rappel*, of Paris, announces the birth of a boy, a few days since under very novel circumstances. In the Captive balloon, on the 13th ult., a young lady was taken ill. A doctor from Tarbes, who happened to be in the car, saw her safely delivered of a boy before the balloon reached the ground, when a cab took mother and child to a hotel. The husband, son of one of the leading manufacturers of Manchester, presented the doctor with five hundred francs for his services. The *Rappel* commends balloon ascents to doctors in search of patients.

**Section of Umbilical Cord.**—Dr. Zweifal has shown by numerous observations that section of the umbilical cord only after delivery of the placenta preserves to the child one hundred grammes more blood. He has not seen any injury to this late section.—*Deutsche Zeit of pract. Med.*

**Thunder and Milk.**—The *Italia Agricola*, writing upon the effects of thunder-storms upon milk, states that it is a generally accepted belief, that it is the lightning and electrical phenomena which accompany a thunder storm that causes the spontaneous coagulation of milk. Dr. Malhoern wished to test the idea, and for the purpose he filled a cylinder with fresh skimmed-milk, introduced into the same one hundred cent. of pure oxygen, and then allowed the electric sparks to pass into the apparatus for the space of ten minutes by means of a Ruhmdorff machine. The milk quickly coagulated, clearly proving that an acid reaction had taken place, and after twenty minutes a firm cheese was produced!

**Toad Poisoning.**—We extract from the *London Chemist*, the following:

"A child, six years old, followed a large toad, on a hot summer day, throwing stones at it. Suddenly, he felt that the animal had

spurted some moisture into his eye. There set in a slight pain and spasmodic twitching of the eye, but two hours after coma, jumping sight, desire to bite, a dread of food and drink, constipation, abundant urine, and great agitation manifested themselves, followed on the sixth day by sickness, apathy, and a kind of stupor, but with a regular pulse. Some days later, having become comparatively quiet, the boy left his bed; his eyes are slightly injected, the skin dry, the pulse free from fever. He howls and behaves himself like a madman, sinks into imbecility and speechlessness, from which condition he never rallies.

**Yellow Fever.**—Loss of life by yellow fever in the South last year is estimated at about 15,000 persons, and of money and trade at from \$175,000,000 to \$200,000,000, as great as the loss by the Chicago fire. But some good is likely to come out of this calamity. It is thought that henceforth quarantine regulations will be more thoroughly established, than they have ever been. Apart from death, and human suffering, negligence is the worst kind of political economy. Expenditure of one-twentieth part of what the fever cost, might have prevented it altogether.—*Scientific American*.

**Salicylic Acid With Boracic Acid.**—Both of the above acids are extensively employed as antiseptics in foods, as neither of them alone imparts any unpleasant flavor, but if both are used together a decidedly bitter taste results. This fact was noticed first by Dr. Hager, who examined a milk with a bitter taste, but failed to find any particular bitter substance in it. On further examination it was found that borax had been added to protect it against the heat of the summer, and afterwards a little salicylic acid was added for its preservation during transportation.

Another case was where a mixture of 2 parts of salicylic acid, 2 of borax, 30 of alcohol, and 200 of water had an exceptionally bitter taste. In both cases, the bitter taste was produced by this combination of salicylic acid and borax. That it was due to the acid and not to the soda, was proved by the bitterness being imparted at once to a solution of salicylic acid on putting in some boracic acid.

Consequently, the use of both antiseptics at once must be avoided, and only one employed at a time. To test the truth of Dr. Hager's assertion, our readers need only to dissolve a grain or two of boracic acid in alcohol on a watch glass, and then add a crystal of salicylic acid; in a few seconds, the taste will be almost as bitter as that of sulphate of quinine. Perhaps salicylic acid can be employed as a certain and quick test for boracic acid in food, especially canned meats.—*Scientific American*.

**Salicylic Acid and Borax.**—The *London Phar. Journal* says: It may be interesting and useful for some readers to know that while a solution containing ten grains of salicylic acid and ten grains of borax in one ounce of water has a very bitter taste and an acid reaction, a solution containing ten grains of salicylic acid and fifteen grains of



borax has no disagreeable taste, and is perfectly neutral. The solution appears to possess all the valuable properties of salicylic acid, and forms an agreeable means of using the acid internally or as a gargle.

**How Nurses are Trained in Philadelphia.**—The age for pupils trained in the Philadelphia School of the Woman's Hospital is from 21 to 45. This school has been in existence since 1861, but was regularly endowed in the year 1872, when the diet kitchen, and the lectures on nursing were established. The course of training extends over two years. The proper functions of the hospital being for the treatment of the diseases of women and children, and for maternity cases, the pupils spend a year in the Pennsylvania Hospital, for practice in general surgical and medical nursing. The wards of the infirmary for nervous diseases, of the Orthopedic Hospital, are also open to pupils of this school who have a special aptitude for such cases. After this comprehensive drill the school reserves the latter portion of their term for private practice, and upon application to the hospital, nurses are supplied to physicians and applicants. The nurses of the Woman's Hospital are required to wear cotton gowns, no stuff dresses being permitted when in service on a patient, in order that there may be the most absolute freshness and neatness, and freedom from any contagion. Their white aprons and other appointments are inspected with the scrutiny of a West Point drill. Although they are thoroughly instructed in the duties of a nurse, the first duty, which is faithful carrying out of the physicians orders, is the cardinal point of their routine. This understood, many of the minor medical duties, such as registering the pulse, taking the temperature of the patient's body, and other observations devolve upon them; and the most exact statement, in writing, of the patient's condition, is to be made whenever required. In the diet kitchen they are taught to prepare food for the sick and serve it; a specified portion of their term being given entirely to this duty. The first general hospital in the city to open its wards to this training school was the Philadelphia Hospital at Blockley, whose managers, in 1876, fitted up one of the pavilions, expressly given in charge to the head nurse and pupils from the Woman's Hospital School. The services of the nurses were gratuitously given, for two years, in exchange for the valuable opportunities offered in the range of cases. This portion of the training is now given in the Pennsylvania Hospital, which has an agreement with the Training School to furnish nurses for its women and children's wards.

The nurses sent out by the Women's Hospital school for private practice carry with them a printed form of paper, upon which both the physician in charge and the patient or friends are requested to register whatever remarks or criticisms confidential may occur, and all these are taken into account in determining the grade of said nurses and their qualifications, as shown in practice. Prominent physicians in Philadelphia have shown their great interest in this school by delivering lectures in the volunteer course each spring, to the respective classes; and the graduated nurses find, on receiving



their diplomas, their work ready for them at once under these physicians, or others, who have the opportunity to observe their fitness as pupil nurses in the school.

**The Condition of CO<sup>2</sup> in the Blood.**—It has hitherto been a disputed point whether the carbonic acid in dark blood is combined with the alkalies or simply dissolved. The analytical processes tried have only given uncertain results. The well known French physiologist, M. Bert, has conceived a method which eliminates all cause of error. It consists in comparing the quantity of gas contained in the blood with that which the latter would contain if it were saturated. His conclusion is, that the blood never contains in the system enough of carbonic acid to saturate the salts (carbonates and phosphates) which can absorb it; and that if this limit be reached, death follows infallibly. The liberation of carbonic acid from the blood, is therefore the effect of a veritable dissociation of these salts; and the same conclusion may be repeated regarding the animal tissues.

**Hydrophobia Treated by Curare.**—A case of hydrophobia was admitted in the Manchester Infirmary on Saturday, Dec. 7th, which was treated throughout with curare. The patient was a gamekeeper, and had been bitten about two months before. The first symptom of anything wrong occurred on Thursday before admission. On Friday, he had eaten nothing, and was violent during Friday night. On admission, his aspect denoted terror, and his voice was very husky; but there was no mark of laryngeal spasm, nor did he evince emotion on hearing a tap of water turned on. He was admitted at 11 A. M. At 1 o'clock, a quarter of a grain of curare, obtained from Messrs. Wooley, was administered hypodermically; and, between that hour and half-past 11 P. M., three more doses, making one grain in all, were exhibited. During the treatment, he became for a time a dusky blue in color, and death seemed imminent. This for a time was warded off, the color and breathing became natural, and after half-past 11 no more curare was given. He died, however, at 2 o'clock A. M., apparently of asphyxia.

**An Anecdote of Dr. Elwood Harvey.**—A writer in *Progress* tells a good story of old Dr. Elwood Harvey, a member of the faculty of the "Female Medical College" in Philadelphia, which in the year 1853 was having a hard fight for existence. Upon one occasion when Dr. Harvey wanted a certain piece of apparatus, he saw no possibility of getting money for it from the treasury; but to have it he determined, and so ventured on as a daring a scheme as could be well undertaken. There was, he heard, a colored girl in hiding in Washington, for whom, both the old master at home and the freed friends in Canada were offering a reward, the old master naturally offering the largest. That the girl ought to be freed was clear to Dr. Harvey's mind, and it was equally clear that if he was the man to do it, it would be a good deed, and he would get the money for his apparatus. He went to Baltimore, hired a horse and buggy, drove to Washington, found the girl, had her dressed in boy's clothing, waited for her in his

carriage in front of the White House, she came, and he drove off. There were perils at the turnpike gates, where men were reluctant to let the "servant" go through, and at a slaveholder's, where they staid all night, there were many jests, truer than were fancied, about the doctor's "runaway." On the ferryboat crossing the Susquehanna, the girl was almost lost, for here, they found a gang of men who believed nothing of her story, until Dr. Harvey took off his coat, and called them to account for troubling his "boy." The size and strength of the doctor was then sufficient proof for them, and they promptly agreed that it was all right. After she reached Philadelphia, the "underground railroad" took her in charge; she was sent safely through, the doctor got the reward of two hundred dollars, and bought what he needed.

**New California Drugs.**—In the *Pacific Med. and Surgical Journal* for October, 1878, Dr. W. P. Gibbons publishes an article in relation to some new drugs lately introduced from California, viz., *Cascara Sagrada*, *Grindelia*, *Squarrosa*, *Yerba Santa*, etc. These remedial agents have been prominently brought to the notice of the profession by a Western drug house, and Dr. Gibbons claims in his article that they are only *pretended* remedies and that they had been introduced under fictitious names; and, that as the party introducing them was an eclectic, they were unworthy of notice. Following upon this attack of Dr. Gibbons, testimony has been offered from all quarters that the drugs do really possess decided therapeutic value and that they were introduced under their *proper* Spanish names. We are surprised that any enlightened member of the profession should object to a remedial agent because of its introduction by an eclectic.

In conclusion, we would call attention to the fact that the *Pacific Med. and Surg. Jour.*, in its January number, says that the plants are really valuable, and that the article by the editor's brother in a previous number was not intended to deny their medicinal virtue and therapeutic value, but only to protest against their introduction under other than the botanical names.

# THE HOSPITAL GAZETTE

AND

## ARCHIVES OF CLINICAL SURGERY.

A WEEKLY JOURNAL OF MEDICINE, SURGERY AND THE COLLATERAL SCIENCES.

EDITED BY

EDWARD J. BERMINGHAM, A.M., M.D., and FREDERICK A. LYONS, A.M. & D.

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### LECTURES.

#### A CLINICAL LECTURE ON INFLAMMATORY AND ON SPASMODIC STRICTURE OF THE URETHRA.

BY

HENRY B. SANDS, M.D.

Surgeon to the Roosevelt Hospital.

GENTLEMEN:—Some of you have seen a typical case of inflammatory stricture, which lately came under my care, on account of retention of urine. I will read the following brief account of the case, which has been condensed from the hospital records, and afterward endeavor to draw from it some useful lessons for your instruction.

E. C., æt. 25, a widower, was admitted into the Roosevelt Hospital on Dec. 2d, 1878. Had gonorrhœa three years ago; recovered readily, no gleet or symptoms of stricture following. Three weeks before admission was again attacked with gonorrhœa, and during past week had much purulent discharge, accompanied with difficult and painful micturition, the stream of urine being small and twisted. Complete retention occurred a few hours before admission, and unsuccessful attempts had been made to pass a catheter.

On admission, the usual symptoms of acute retention were present, the distended bladder reaching as high as the umbilicus. Patient suffered great pain, and strained violently, without being able to pass any urine. On examination of the urethra, a close obstruction was found, about six inches behind the meatus, the mucous membrane at the seat of obstruction being extremely sensitive, and prone to bleed. After a patient trial, a filiform bougie was passed into the bladder; but although the instrument did not appear to be tightly grasped, no larger one could be introduced, and no urine escaped on its withdrawal. The bladder was then aspirated above the pubes; but, owing to a defect in the instrument, only nineteen ounces of urine could be withdrawn. The removal of this quantity, however, afforded great relief, and under the use of hot baths and small doses of opium, some urine was passed on the following morning. Twenty-four hours after



the bladder had been aspirated, it was readily emptied by a flexible catheter, No. 17 F. On Dec. 4th, micturition became quite free, and on Dec. 5th, patient was discharged at his own request, a steel sound, No. 27 F. having been passed without difficulty into the bladder.

The case thus briefly narrated affords a good example of that variety of stricture which has been called inflammatory, or congestive; and I think that these terms have been well chosen. Some authors have proposed to discard the name "inflammatory stricture," believing that the symptoms ascribed to this affection are due to spasm of the muscular fibres surrounding the urethra, and that, therefore, the term "spasmodic" ought to be substituted for "inflammatory." I consider this suggestion unfortunate; and if either appellation had to be dropped, I would much rather retain the latter one. But I think it necessary to recognize the existence of each one of these forms of stricture, although I believe that the spasmodic variety is rare. Often both forms are associated; but this association is not invariable, and it will therefore be proper to study separately the two morbid conditions denoted by the names in question.

To render intelligible what I am about to say, it will be necessary to recall to your minds a few facts relating to the anatomy of the urethra. Externally to the mucous membrane are found one or more layers of unstriped muscle, disposed either circularly or longitudinally, and varying considerably in thickness and general arrangement in the different segments of the canal. In the prostatic division, there exist both longitudinal and circular fibres, the latter forming a stout muscular ring, called by Henle the sphincter vesicæ internus. Close to the bladder, this layer of fibres is nearly half an inch thick, the thickness gradually diminishing towards the apex of the prostate. Throughout most of the gland, also, the muscular predominates over the glandular tissue, so that the prostatic urethra may be regarded as a canal running through a thick mass of unstriped muscle. Outside of, and blended with the sphincter vesicæ internus, are numerous fibres of striated muscle, forming the sphincter vesicæ externus, which is most highly developed toward the apex of the prostate, where it forms a complete ring, and is continuous with the compressor urethræ.

The membranous division of the urethra is surrounded by a stratum of plain muscle, about one millimetre in thickness, the fibres being, for the most part, circular. Externally to this layer is found a considerable quantity of striated muscle, constituting the compressor urethræ, and capable of forcible contraction during the emission of semen, or the expulsion of the last drops of urine at the end of micturition.

Around the spongy portion of the urethra there are no voluntary fibres; while the plain fibres, which are placed longitudinally, are quite scattered, forming a broken layer, which, when it exists, does not exceed half a millimetre in thickness. Circular fibres are wanting, except in the posterior part of the bulb.

The only anatomical facts that remain to be mentioned, are the narrowness of the membranous urethra, and the inability of both the membranous and the prostatic portions to undergo sudden dilatation,

owing to the firmness of the textures by which they are enveloped. These circumstances will be found to explain the relative frequency with which the deeper parts of the urethra are obstructed in cases of inflammation of its lining membrane.

The causes of inflammatory or congestive stricture are various. Wounds, accidental or surgical, of the urethra or its surrounding parts; excessive alcoholic stimulation; a highly acid state of the urine; inflammation of the pelvic organs, especially the prostate; and the internal use of turpentine or cantharides, are more or less common causes of this affection. But, most often, the disease comes on during the course of either gonorrhœa or gleet, particularly when the symptoms have been severe, and the discharge profuse. After venereal excesses, or exposure to cold, or indulgence in alcoholic stimulants, the patient finds that micturition is either difficult or impossible. As the bladder continues to distend, the pain and straining increase, but the inability to void the urine persists; and the case is brought to the notice of the surgeon, who, on examination of the urethra, discovers an obstruction, which varies in degree in different instances, and is usually situated at the bulbo-membranous junction. Occasionally it is seated in the prostatic part of the canal, when, however, it is apt to depend on acute prostatitis, or prostatic abscess, affections which I do not now propose to describe. Nearly always the urethral mucous membrane at the seat of stricture is highly sensitive, and bleeds at the slightest contact of an instrument. Nevertheless, in many cases, a catheter of medium size can be safely introduced into the bladder, the obstruction giving way to gentle, but steady, pressure. Sometimes, nothing larger than a filiform bougie can be inserted; but, after allowing this to remain for a few minutes, the urine will often flow in a narrow stream when it is withdrawn. Ether occasionally facilitates the passage of an instrument; but often, in severe cases, anæsthetics are of no avail, and the obstruction is, for a time, impassable. Relief, however, soon follows appropriate management; and after the lapse of perhaps twenty-four hours, the urine begins to flow, at first in a small, afterwards in a larger stream; and the symptoms of retention disappear. After recovery has taken place, the urethra will often be found to have its normal dimensions; while, in other cases, an organic stricture will be detected at the site of the previous obstruction, causing a permanent narrowing of the canal to a greater or less degree.

In such a condition as I have described, the only rational explanation of the facts is that which ascribes the symptoms mainly, or entirely, to a temporary swelling of the mucous membrane of the urethra and of the subjacent tissues at the seat of obstruction. I am aware that this explanation is rejected by some, who deny that any amount of inflammatory swelling can cause retention, and who attribute the symptoms to a constriction of the urethra, caused by a spasmodic action of the muscular fibres that surround it. But this latter view seems to me to over-estimate the effect of muscular action in causing the constriction, as well as to ignore the agency of other causes which, under the circumstances, may be adequate to produce



it. We know that, in various parts of the body, natural passages may be narrowed, or even occluded, by the swelling that accompanies an inflammation of their lining mucous membrane. Doubtless, most of us have suffered, at one time or other, from stoppage of the nostril, dependent upon the tumefaction of the Schneiderian membrane, which attends a common cold. Less familiar, yet not unusual examples of obstruction, due to a similar cause, are found in cases of inflammation affecting the lining membrane of the external auditory meatus, the tear passages, or the Eustachian tube. Accordingly, analogy would lead us to expect that in urethritis, the dilatibility of the canal would be diminished in consequence of inflammatory swelling. That such swelling is often present, is demonstrated by the tumefaction which, in gonorrhœa, is frequently observed in the mucous membrane near the external meatus; and we know that, usually, the inflammation extends for a considerable distance behind this orifice, being often most marked and obstinate in the neighborhood of the bulb. We might, therefore, reasonably anticipate that the stream of urine would be narrow in gonorrhœa; and that it is so, has long been known to all who have carefully noted the phenomena of the disease. Examine the first patient you find afflicted with an attack of acute urethritis, and you will discover his micturition to be not merely painful, but difficult, in consequence, as I think we may fairly imagine, of just such swelling of the inflamed parts as occasions obstruction in the several instances I have already adduced by way of illustration. This diminution in the size of the urinary stream often occurs at an early period, when the disease is limited to the anterior part of the urethra. In this case, it would be hardly fair to ascribe the symptoms to spasm, as the muscular fibres in this situation are insignificant in number, and cannot be thought capable of energetic contraction. We should bear in mind, too, that the probable effect of urethral inflammation would be rather to diminish than to increase the power of the organic muscular fibres surrounding the canal. In iritis, for example, the pupil is always sluggish, and responds slowly to the stimulus of light or atropine, even before the formation takes place of adhesions between the iris and the lenticular capsule. Likewise, in peritonitis, the muscular coat of the intestine, instead of being in a state of spasm, is commonly paralyzed, thus permitting unnatural distension of the gut, and preventing the action of cathartics.

Admitting, then, that obstruction of the urethra may be caused by inflammatory swelling, we can readily conceive that such obstruction might attain its maximum in the membranous division of the canal, which is normally narrow, and invested by textures that are comparatively firm and unyielding, and, so far as my experience goes, the bulbo-membranous junction is the point at which the catheter is usually arrested, in cases of inflammatory stricture. The extreme sensitiveness of this part in such cases, and the readiness with which it bleeds, are further evidences of the inflammatory nature of the disease. Nevertheless, I am not prepared to deny that, in inflammatory stricture, the obstruction may be partly due to spasmodic contraction of the striated muscle known as the compressor urethræ, for



I suspect that such contraction has a certain share in the production of the symptoms, and that it may even determine retention in some cases, in which the tumefaction of the inflamed tissues would alone be inadequate to cause it. I merely desire to express my opinion that muscular spasm is not the chief factor in the pathology of the affection, and that its influence has been greatly over-rated.

To make this point clearer to you, it will be desirable to inquire carefully into the nature of purely spasmodic stricture; that is to say, of stricture dependent solely on muscular contraction, and not associated with any inflammatory or congestive thickening of the parts at the seat of obstruction. By proceeding in this manner, we shall be able, perhaps, to estimate more correctly the share which ought to be assigned to spasm, in the production of the symptoms belonging to **inflammatory stricture**.

Now, purely spasmodic urethral stricture, although often described, is, in my judgment, very seldom met with. The most extravagant statements are made by some writers respecting the frequency of its occurrence; and it is gravely held that the muscular tissue external to the spongy portion of the urethra is capable of powerful contraction upon the canal at any point. Such language seems to me to be entirely visionary, and to be based upon abstract notions concerning the muscularity of the urethra, which have been gained by the hasty perusal of books on microscopic anatomy, and not from actual dissection. As I have already remarked, except in the posterior part of the bulb, the muscular tissue outside of the mucous membrane of the spongy urethra forms a broken layer, nowhere exceeding one-fiftieth of an inch in thickness, and composed only of longitudinal fibres. A considerable quantity of unstriped muscle exists in the erectile tissue of the corpus spongiosum; but this cannot affect the dilatability of the urethra, while the insignificant layer of longitudinal fibres just referred to, can hardly be thought capable of forcible contraction. That they can cause anything like stricture, I do not believe; nor have I ever met with any morbid condition resembling spasm in the spongy portion of the urethra.

The doctrine of spasmodic urethral stricture originated with the celebrated John Hunter, whose genius enabled him to infer the muscularity of the urethra, although he did not succeed in demonstrating it. But I think it is evident, from all that Hunter wrote regarding urethral stricture, that he did not recognize the inflammatory form of the disease; and that his views concerning urethral spasm would, at the present day, be regarded as crude and unsatisfactory.

Anatomy and physiology alike point out the membranous division of the urethra as the one in which spasmodic stricture would be most apt to occur; and it is easy to conceive that the contraction of the compressor urethræ muscle might be sufficiently energetic to cause retention of urine. Nevertheless, I believe such an occurrence to be extremely rare, although it is often spoken of as being the cause of symptoms, the nature of which must be considered at least as doubtful. Among these doubtful cases, I would place those in which the patient is unable to urinate in consequence of fear, or of some mental

emission. Numerous examples of this sort of inability have been recorded, and the morbid state—if it may be so called—is one with which every practitioner is familiar. It has been aptly named by Sir James Paget, "hammering of the bladder," and appears, as he remarks, to depend upon a want of concord between the muscles concerned in emptying the bladder, and the sphincteric muscles which guard its orifice, namely, the two vesical sphincters and the compressor urethre. Now, in the cases just referred to, it is the failure of these latter muscles to relax, which prevents the evacuation of the bladder, but this can hardly be called stricture, and never offers the slightest obstacle to the introduction of a catheter. Other doubtful cases are those in which retention occurs after parturition, or after operations on the rectum, such as the ligation of hemorrhoids, or the division of anal fistule. I can find in those cases no evidence of spasm, and in treating them, I have never experienced the least difficulty in passing a catheter. The cause of retention in such instances cannot be stated positively, and is probably not always the same. A want of harmony between the muscles concerned in micturition, a dread of pain during the act, hysteria, and congestive swelling of the parts around the deep urethra, suggest themselves as possible causes of the trouble in question. But, whatever may be the explanation of it, the facility with which a catheter may be introduced, proves the absence of any decided urethral contraction or spasm.

I am likewise very sceptical as to the spasmodic character of the obstacle which is said to be so frequently met with in persons who have an extremely sensitive urethra, or in whom the catheter is introduced without due gentleness. In such instances, the difficulty experienced is commonly ascribed to spasm of the urethra; but it would be more reasonable, I think, to attribute it either to the voluntary resistance of the patient, or to a want of surgical dexterity. Catheterism is a delicate procedure, and one that is quite apt to fail, if the patient shirks from the operation, or the surgeon is rough and unskilful. It is a matter of common observation, that one surgeon will often perform it successfully, immediately after another one has failed; and even on the cadaver, I have repeatedly seen students foiled in their attempts to reach the bladder, although the urethra had its normal dimensions. If the point of the instrument, having arrived at the bulbourethral junction, is not directed with precision, it will, as you know, impinge on the triangular ligament, and be arrested in its course. By withdrawing it slightly, and then altering its direction, its point may be made to enter the opening in the ligament, and to pass on readily into the bladder. I am convinced that the resistance offered by this natural obstacle is the cause of what is often termed spasm of the compressor urethre; and I am very doubtful whether this muscle can contract with sufficient force to prevent the introduction of a catheter steadily and properly directed. With the object of estimating the degree of obstruction that can be caused by its action, I have often resorted to a simple experiment. The muscle, as is well known, can be made to contract voluntarily, the contraction being simultaneous with that of the accelerator urinæ and the sphincter ani. Now I



have often observed, that if, during catheterism, and when the instrument has been introduced as far as the bulb, the patient is instructed to contract the compressor urethræ with all the energy he can command, little or no resistance is offered to the onward passage of the instrument. In a few cases, the resistance can be distinctly felt; but, even then, it can be overcome by steady and gentle pressure. Likewise, when a catheter has been introduced into the bladder, its withdrawal is never rendered difficult by any muscular effort which the patient can make. So far as my personal experience goes, I have yet to meet with a single instance of purely spasmodic urethral stricture. Yet I will not affirm that such a form of stricture never exists, as a few examples of this kind have been recorded by competent observers. I only contend that the disease is an exceedingly rare one; and that those who describe it as of common occurrence, are guilty of avoidable errors in diagnosis.

To what extent spasm of the compressor urethræ may complicate either an organic or an inflammatory stricture, situated in the deeper part of the urethra, I cannot say, although I am disposed to think that in both these affections, the complication often exists. But I am certain, that whatever part of the obstruction may be due to morbid muscular action, can always be successfully overcome by the pressure of a catheter, aided, if necessary, by the administration of an anæsthetic.

Of late years, the theory of reflex action has been applied—or I would rather say—misapplied, to a class of cases, the pathology of which is, in my judgment, too well established to be overthrown. It has been asserted dogmatically, that what is commonly regarded as deep seated organic stricture, is nothing else than a constriction of the urethra, due to spasm of the compressor urethræ, such spasm being the result of a reflected irritation from one or more true organic strictures, situated anteriorly in the spongy portion of the canal. This theory, which, I must tell you, rests upon a very slender foundation, was invented by the French surgeon Verneuil, who made it the subject of a communication to the Anatomical Society of Paris, in the year 1866.\* Prior to that time, abundant testimony, derived from post-mortem examinations, had been adduced to prove, that in a large majority of cases of organic stricture, the contraction was situated in the bulbous portion of the urethra, near to the triangular ligament. I may remark, in passing, that this fact has never been refuted by anatomical evidence. In corroboration of it, I would state, that out of thirteen specimens of urethral stricture contained in the museum of the New York Hospital, twelve exhibit well marked organic contraction at, or near to, the bulbo-membranous junction.

Now, Verneuil, who appears not to have examined strictures by dissection, asserted, as the result of clinical observation, that deep seated organic strictures, so far from being common, were extremely rare; and that, in the immense majority of cases, supposed to be of this nature, the real stricture would be found in the penile portion of

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\*Bulletin de la Société Anatomique de Paris. Tome 41, p. 170.



the urethra, the contraction of the deeper segment being due to a reflex spasmodic action of the compressor urethrae muscle. He acknowledged that his views were hypothetical, and invoked the aid of his colleagues in testing their accuracy. During the thirteen years, however, which have elapsed since his opinions were promulgated, nothing confirmatory of them has appeared in the transactions of the Anatomical Society.\*

About a year after Verneuil had published his views, Folet, one of his pupils, made them the topic of an elaborate article, which was inserted in the "*Archives Générales*,"† and in which he recorded the history of all the cases of stricture which had been treated in Verneuil's service at the Lariboisière Hospital, during a period of seven months. Of these patients, ten in number, only one was thought to have deep seated organic stricture; while in nine of them, one or more strictures were detected in the spongy portion of the urethra. In all of the latter, however, a decided obstruction was encountered in the membranous urethra, which was believed to be the seat of reflex muscular contraction. Folet concludes from his observations, that deep-seated organic strictures are rare, while penile strictures are frequent; that in every case of the latter, a constriction will be discovered in the membranous urethra, opposing the entrance of a sound; and that this constriction is the result of a reflex spasm of the compressor urethrae muscle, induced by organic stricture situated anteriorly.

Two things are evident on reading Folet's paper; first, that the writer is ardently desirous of defending a favorite theory; and secondly, that he has mistaken the natural obstacle I have referred to, as situated in front of the triangular ligament, for a contraction of the urethra occasioned by spasm. The paper affords a curious example of ingenious speculation, but fails utterly in carrying conviction to an impartial mind.

So far as I am aware, the views of Verneuil and his pupil concerning spasmodic stricture, have not been adopted in his native country; but I have thought it proper to direct your attention to them, because they were presented here as a surgical novelty by Prof. Otis in 1875,<sup>1</sup> and urged by him as a plea for the performance of operations which I believe to be dangerous and unwarrantable. It was held that, as a rule, what surgeons generally regarded and treated as deep seated organic stricture, was, in fact, merely a constriction of the membranous urethra caused by chronic spasm of the muscular fibres surrounding it, and that a constriction of this kind could not be distinguished from one dependent on true organic stricture. It was furthermore

\* Two specimens, intended to sustain Verneuil's theory, were presented to the Anatomical Society in 1870, by M. Cornillon, an *interne* in one of the Paris hospitals. Both cases, however, are unconvincing, as in one, spasmodic stricture was believed to result directly from the arrest of a filiform bougie, while in the other, a false passage was found in the urethra at the bulbo-membranous junction, communicating with a perineal abscess.

† *Archives Générales de Médecine*, 1867, p. 401.

<sup>1</sup> On Spasmodic Urethral Stricture. By F. N. Otis, M.D. *Archives of Dermatology*, Vol. 1, No. 3, N. Y., 1875.

alleged that the free division of one or more anterior strictures, presumed in such cases, to exist, would be immediately followed by a subsidence of the spasm, permitting the easy introduction of a full-sized instrument.

Such statements demand the closest scrutiny, and cannot be accepted without reserve. A certain degree of scepticism is necessary to guard against error, and a just conservatism requires that well established opinions should not be renounced until they have been proved untenable. The science of medicine, although rapidly advancing, can reckon up many more innovations than discoveries; and no extraordinary assertion ought to be accepted, unless it can be amply verified. The arguments that may be urged against the adoption of the theory I have referred to are numerous; but it will now suffice to mention those of chief importance. First, the theory is unsupported by evidence derived from pathological anatomy. So far as the examination of existing specimens shows, organic stricture of the urethra occurs with greatest frequency in the deeper portions of the canal, in the neighborhood of the bulbo-membranous junction. Those who assert the contrary are bound to prove the truth of their assertion by anatomical evidence, as Verneuil, the originator of the new doctrine himself acknowledged. No such evidence has been presented, while the clinical testimony offered is exceedingly unsatisfactory, many of the so-called anterior "strictures of large calibre" having no existence, as I believe, except in the imagination of the surgeon or the patient. Moreover, it cannot be admitted that a spasmodic contraction of the urethra is undistinguishable from a true organic stricture. The two affections are so widely different, that they can be confounded only by an incompetent observer. Spasmodic contraction, when occurring, is variable in degree, and transient in duration, and can always be overcome by the steady pressure of a catheter or a sound. Any doubt as to the true nature of the disease can be settled by the administration of an anæsthetic, which will relax the compressor urethræ, as it is known to relax the sphincter ani, a much more powerful muscle, spasm of which often accompanies the disease called fissure. That, under ether, any such contraction of the compressor urethræ can take place, as to prevent the introduction of a catheter, is so totally at variance with the well known influence of anæsthetics in causing the relaxation of other sphincter muscles, as to seem almost absurd; nor do I think that the fact has ever been established on trustworthy authority.

As a matter of observation, I have examined many cases of well marked penile stricture without being able to discover the slightest accompanying obstruction in the membranous urethra; so that I feel justified in assuring you that the association of the two morbid conditions is certainly not, as it has been alleged, either frequent or invariable.

Regarding the theory as unsound, I cannot think that the practice deduced from it is otherwise than pernicious. It neglects the principle disease for one of secondary importance. The readiness to diagnose stricture in doubtful cases, and to mutilate the penis and urethra by extensive and unnecessary cutting, is, in my humble judg-



ment, not very creditable to the American Surgery of the present day; and I venture to predict that there will soon be a wholesome reaction in favor of more cautious methods of diagnosis, and of milder and safer modes of treatment. The reported cases of marvellous cures of so-called permanent spasmodic strictures, said to have been effected by the incision of organic contractions situated anteriorly, have not impressed me with their validity; and, although I would not deny the possibility of such results, I cannot refrain from expressing my incredulity. I was much interested lately in an operation which was performed by one of my colleagues at the New York Hospital, upon a man who had been admitted on account of a deep-seated stricture, situated five inches behind the meatus, and admitting only a filiform bougie. Anteriorly, several strictures of large calibre were diagnosticated, and it was decided to divide these in the hope that the deeper obstruction would then yield. But, after the meatus had been freely cut, and the urethra had been so extensively divided with the dilating urethrotome, that a bulbous sound, No 33 F. could be passed without resistance from the meatus to the bulb, the deep stricture remained as tight as ever. With considerable difficulty, Maisonneuve's urethrotome was then introduced, and the stricture divided in the usual manner. The result was such as I had anticipated; and, although I was greatly interested in the operation as a scientific experiment, I have no hesitation in saying that it would have been far better if the injury inflicted on the anterior part of the urethra had been avoided. Certainly, the result of the experiment affords no encouragement for a repetition of such heroic procedures, which are at least useless, and by no means free from risk.

The treatment of inflammatory stricture has been alluded to, but perhaps needs a fuller explanation. Retention of urine is the most urgent symptom present, to relieve which you should endeavor to empty the bladder by means of a catheter. The instrument, whether flexible or not, must be employed with great gentleness, otherwise the inflamed parts may be lacerated, and the existing mischief aggravated. Anesthetics sometimes, but rarely, according to my experience, afford much help; and of late years I have almost ceased to use them. Rest in bed, leeches applied to the perinæum, the hot bath, and opium, are valuable adjuvants in the treatment, and may be trusted to alone, if the bladder is not much distended. But, if the symptoms of retention are growing, and a catheter cannot be safely introduced, the bladder should be immediately emptied by means of an aspirator, the needle of which must be inserted above the pubes. Instant relief follows this simple operation, which I regard as one of the most precious resources of modern surgery. Puncture of the bladder with the old fashioned trocar was always considered a somewhat barbarous procedure; and therefore, perhaps, never met with the favor it deserved as a surgical expedient. But the aspirator is efficient, safe, and almost painless in its operation; and may be repeatedly employed, if necessary, without the fear of evil consequences. Usually, after the bladder has been punctured once or twice, the urine begins to escape from the urethra. The stream is small at first, but soon grows larger, and in the absence



of organic stricture often attains its normal size within forty-eight hours from the time of the attack. Of course, after the urgent symptoms have subsided, any remaining inflammation or organic stricture of the urethra should receive proper attention, in order to guard against a recurrence of the disease.

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## HOSPITAL RECORDS.

### BELLEVUE HOSPITAL, NEW YORK.

Reported by E. HOCHHEIMER, M.D., House Surgeon.

#### PERFORATING PISTOL-SHOT WOUND OF CHEST—PNEUMONIA—RECOVERY.

James M. was admitted Dec. 17th, 1878, in a state of profound shock; pulse scarcely perceptible, pupils contracted, surface cold and clammy. He brought with him a history of having been shot while running away, and on examination there was found, as the point of entrance of the ball, a small wound  $2\frac{1}{2}$  inches to the left of the spinal column near the angle of the scapula, and another anteriorly, representing the point of exit,  $\frac{3}{4}$  of an inch to the right of the left nipple, in the fourth intercostal space, showing that the ball had passed completely through the chest, in a straight line. The hemorrhage from the posterior wound was inconsiderable; that from the anterior one was more profuse, dark frothy blood gushing from it each time the patient coughed. There was also emphysema of the chest-wall on the left side.

For the shock, stimulants and opium were administered and hot bottles applied to the extremities. A compress was applied to the posterior wound, and the anterior one sealed with picked lint soaked in collodion. After coming out of the shock, the patient vomited the contents of the stomach, and on coughing expectorated blood in small quantity.

During the following day the temperature varied from  $100^{\circ}$  to  $102^{\circ}$ ; the pulse rose to 106 and became full, soft, and bounding; he took, without vomiting, considerable quantities of whiskey, and milk and lime-water.

*Dec. 19th.*—At 9 A. M. his temperature was  $103\frac{1}{2}$  and rose to  $104\frac{1}{2}$  at 5:30 P. M. but fell again to  $102\frac{1}{2}$  at 11 P. M.

*Dec. 20th.*—His temperature remained high ( $102\frac{1}{2}$  to  $105\frac{1}{2}$ ), and physical examination revealed the presence of pneumonia on the left side. The only treatment employed was morphia for the relief of pain, a mixture containing gtt. j of Fleming's tr. aconit. rad. Ord. gtt. v of tr. digitalis to the dose, and single doses of gr. xx to xxv quin-sulph. to reduce the temperature.

His condition continued unchanged until Dec. 22d. He expectorated a little blood each day, but at the latter date the hæmoptysis ceased. His temperature fell at the same time from 104 at 7 A. M. to  $101\frac{1}{10}$  at 11:30 A. M. and never subsequently rose higher than  $102\frac{1}{2}$ .

*Dec. 28th.*—His temperature was 99, and physical examination showed that the pneumonia was resolving. Since that time his progress toward recovery has been uninterrupted so that now (*Jan. 9th*) he is able to be up and about, his temperature and functions are normal and he suffers from nothing but weakness.

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### PERISCOPE.

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### GLEANINGS FROM OUR FRENCH AND GERMAN EXCHANGES.

BY  
JNO. A. WYETH, M.D.

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#### A CASE OF STRANGULATED HERNIA SUCCESSFULLY TREATED BY ERGOT—DR. PLANAT.

Patient fifty years of age. Ointment of ergotine was applied locally every two hours, after having washed the swelling with a warm alkaline solution; also given by mouth, full doses, every hour. After four or five hours vomiting ceased, and twelve hours later the gut returned spontaneously.

*Case No. 2.*—Man, æt. 28, suffering from strangulated hernia, for the reduction of which several ineffectual attempts had been made. Fifteen leeches were applied over the tumor and ergot was employed, as in preceding case. Eleven hours after, before proceeding to operate, the taxis was successfully employed. M. Planat thinks the remedy would act more efficiently if used hypodermically, and especially in the hernial sac itself.—*Gazette des Hopitaux, Dec., 1878, p. 1181.*

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#### PERSISTENT MENSTRUATION THROUGH NINE MONTHS OF PREGNANCY.

DR. CHARLES of the Medico-Chirurgical Society of Liege.

Patient *primi-para*, æt. 24, delivered of a still-born child at term, after protracted labor. In a second pregnancy she menstruated regularly through the earlier months, after which the flow ceased. At the eighth month she was taken with hemorrhage which ceased after two days in bed. A few days before delivery another hemorrhage occurred, which was arrested by tampon in vagina. Two days later natural labor.—*Ibid. p. 1182.*

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#### REMOVAL OF THE ASTRAGALUS—DR. GIRARD.

Patient, female, æt. 45, having fallen from a chair; was treated by massage, friction and manipulation at the hands of a quack three months before consulting a physician, who at once discovered dislocation of the astragalus complicated by a wound of the soft parts, through which projected necrosed bone. Operation for removal of astragalus was decided upon and performed successfully. Patient recovered use of limb.—*Ibid. p. 1182.*



## FOREIGN BODY IN THE RECTUM.

Dr. Petavel, *Bulletin de la Société Médicale de la Suisse Romande*. Patient, male, æt. 40. since age of sixteen had contracted peculiar habit of introducing foreign bodies into his rectum, having previously lubricated them with soap, following the example of other workmen whom he had seen introduce peas, carrots, beets, etc., in the same manner. While in a sitting posture he introduced a piece of wood into the anus, which, on his assuming an erect position, suddenly disappeared entirely up the rectum. After prolonged manipulation, the sphincter muscle having been dilated the foreign body was removed by means of forceps. It proved to be a pepper-box six cm. long ( $2\frac{3}{8}$  in.) by five cm. wide (2 in.), being in the form of a small barrel with a circumference of twenty cm. (8 in.)

Dr. Revilliod relates a case in which he was obliged to use forceps to extract a bottle which one of his patients had inserted into his rectum.

Vidal reports the case of a monk who, in order to relieve himself of a violent colic had introduced into his rectum a bottle *d'eau de la reine de Hongrie*, having previously perforated the cork so that the liquid might escape into the bowels. The bottle had entirely disappeared, and after many ineffectual efforts was at last only extracted by employing the hand of a child eight or nine years old.—*Ibid.* p. 1182.

## TREATMENT OF PROLAPSUS RECTI.

Dr. Basevi, in the *Wiener Medizinische Presse*, Sept. 15, 1878, describes a plan of treatment of *prolapsus recti* in infants which has given excellent results.

When the intestine has protruded for the first time he cauterizes the mucous membrane lightly with nitrate of silver and returns the gut and employs an enema of alum and tannin in ice-water. If it is a chronic case, the prolapsed intestine is returned and while the child is held in a position to prevent its again coming down, a bandage an inch in width is passed around the body from above downwards as far as the anus, drawn tight enough to closely approximate the buttocks, which prevents the recurrence of the accident. To prevent this horizontal roller from slipping, a double spica is applied around each thigh and crossing on the back. At night a sheet of gutta-percha, softened and moulded to fit comfortably, is placed under the lower portion of the dressing to prevent it from being soiled by the discharges. The bandage is allowed to remain ten or fifteen days, since it holds the gut in position and does not interfere with defecation. If diarrhœa occurs an injection of alum or tannin is given twice daily and in case of constipation appropriate enemata. Mr. Bryant, of Guys, operated in nearly the same manner upon a girl, æt. 4. June 25, under chloroform the mucous membrane was cauterized with *arg. nitras.*, the bowel returned and a tampon applied. Intense pain and rectal incontinence followed. The prolapse did not recur. In another case of a woman aged 20, he was not so successful.



Patient herself was healthy although several members of her family had died of phthisis. Twelve years ago, while at stool, prolapse occurred, which was reduced *several days* after by a surgeon. Two months ago the accident again occurred. June 19, 1877, under chloroform, thorough cauterization with thermo-cautery and reduction. Suffered from want of sleep from intense pain. June 27, slight prolapse which returned spontaneously. During July patient's condition was not good and prolapse occurred at each stool. July 24, operation repeated and morphine suppository inserted. Night following and next day, severe pain in rectum and abdomen. July 26, during attacks of vomiting prolapse occurred twice accompanied by slight hemorrhage. Tampon again applied. July 27, catheterization. On August 25th, third cauterization. October 9, fourth cauterization followed by intense pain for several days and profuse discharge. Nov. 8, fissure of the anus. Nov. 27, the patient was able to walk about the wards with little inconvenience. There was a slight prolapse which followed each act of defecation but disappeared soon after. Patient quite comfortable.—*Le Progrès Médical*, Dec., 1878, p. 986.

[It is inferred from these cases that while cauterization can be safely and successfully practiced in infants and children, it is more tedious and dangerous than the usual procedure of removal by ligature in adults.]

#### NEW INSTRUMENT FOR TWISTING METALLIC SUTURES.

*Clavier*, instrument maker of Brussels, presented to the Academy of Paris a new instrument for twisting metallic sutures. It is simple in construction, light, and can be readily worked with one hand and will prove valuable in deep operations.—*Ibid.*, p. 988.

#### COMPRESSION OF OVARIES IN HYSTERO-EPILEPSY.

Dr. P. Poinier, *Interne de la Salpêtrière*, has invented an instrument which he has used successfully in the treatment of hystero-epilepsy in the service of M. Charcot.

The instrument acts in much the same manner as the aortic tourniquet and the compression is secured by the descent of a long screw, to the end of which is attached a single pad or a horse-shoe-shaped double pad, for one or both ovaries.

The researches of Prof. Charcot have demonstrated beyond a doubt that it is to the ovaries, that the constant iliac pains of hystero-epilepsy are referable. The amount of pressure to be employed, or whether one or both ovaries are to be compressed, is determined by the requirements of each case. Several cases are detailed in which this method was successfully employed.—*Progrès Médical*, Dec., 28, 1878, pp. 993-4.

#### SYPHILIS COMMUNICATED BY TATTOOING.

*Julian*, *Progrès Médical*, reports a case in which syphilis was communicated in the process of tattooing, which is interesting as being

one of the few on record, also in the fact that the circumstances of the contagion were unequivocal. A man aged 19, of lymphatic temperament, entered the Hospital du Midi, in the service of M. Simonet, in January, 1877. Towards the end of June, 1876, he had been tattooed upon the forearm by a person who dissolved the Chinese ink which he used in his saliva, and further placed a small quantity of the same fluid upon each puncture. At the time, it was known that the operator suffered from some trouble of his mouth for which stick nitrate of silver was used. Towards the end of August, three small papules were formed on the right forearm, above the wrist joint. These soon became enlarged and encrusted, and were accompanied by swelling in the corresponding axilla. In the month of October, a physician ordered cataplasms for his ulcers and also placed him upon a mercurial treatment. No general manifestations of syphilis were observed until his entry into the hospital as stated in January, 1877. At this time had mucous patches in the mouth and upon the scrotum; crusts in the scalp and all of the external ganglia were enlarged and indurated except the epitrochlear. The three chancres on the forearm still existed, and were of characteristic syphilitic appearance. There was no eruption upon the integument. This history seems complete. The exceptionally long first period of incubation of about sixty days is interesting but not unusual as the reporter himself has seen two cases in which exactly this length of time elapsed from the date of contagion to the appearance of the initial syphilitic lesion as borne out by facts which admitted of no doubt whatever. The late evolution of the secondary manifestations and absence of any cutaneous lesions, were undoubtedly due to the influence of the mercurial treatment prescribed in October. Here, then is another manner in which the secretions of mucous patches of the mouth may convey syphilis.

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#### A FREQUENT THOUGH SELDOM RECOGNIZED CAUSE OF RETENTION OF URINE IN FEMALES.

Dollmayer calls attention to what he believes to be a frequent though seldom recognized cause of retention of urine in females. The form alluded to is met with in subjects advanced in life and those who have long ceased to menstruate. The first indication is a burning sensation at the meatus during micturition, slight at first but gradually extending and increasing in intensity, so that a feeling as if a red hot needle was lodged in the urethra is experienced. The stream becomes smaller and at last there is much difficulty in relieving the bladder. If in an extreme case of this kind a close examination of the external orifice be made, it will be found to be blocked up by small ruddy excrescences which bleed freely if touched. This condition the author is disposed to attribute to continued inflammatory action set up in the mucous membrane of the urethra by some local cause, the result of such action being polypoid thickening of the membrane. The excrescences may be destroyed speedily by the ac-



tion of nitrate of silver or sulphate of copper and then the symptoms will cease. The author insists that in cases of retention of urine in females a close examination of the urethra should be made.

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### ABOUT BOOKS.

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*A Treatise on the Science and Practice of Midwifery. By W. S. Playfair, M.D., F.R.C.P. Phila. H. C. Lea, 1878.*

This is the second edition of a work which appeared about two years ago, and which has proved an invaluable companion to every student of medicine who has been fortunate enough to possess a copy. It seems to have given entire satisfaction, as is evidenced by the rapid sale of the work and the early necessity of issuing a second edition. When we consider the large number of excellent treatises at present within the reach of the profession, we cannot help thinking what a source of extreme satisfaction it must be to the author, to see the early demand for a second edition of his work. It is only our intention here to announce this edition, and to those who are not acquainted with the work we would say that it is one of the most valuable reference books for the practitioner, and one of the best text-books for the student.

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### CORRESPONDENCE.

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#### TREATMENT OF POTT'S DISEASE.

New York, Febr'y, 3, 1879.

*Editors of the Hospital Gazette,*

GENTLEMEN:—Your issue of the 30th ult. I have just received and I find that, by some hasty oversight on my part in correcting proof you were kind enough to send, I have permitted myself to go on record as saying [p. 96 last paragraph] "I believe there is *only* [italics in notes] one apparatus useful in cases of diseases of the spine."

What I did say was "I believe there is one apparatus, at least, useful etc."

My remark was simply made in reply to the 2nd proposition in the Synopsis of Dr. Wyeth's paper as found on the card of notice for the meeting. The proposition was

2 "The Plaster of Paris Jacket as now used, and all other methods fail to meet the indication for the cure of the deformity with the cure of the disease, and often fail to cure the disease."

I had had experience with the brace of which I spoke and hence I had no right, much less a wish, to speak disparagingly of the many other useful forms of apparatus now in vogue.

With much respect,

V. P. GIBNEY.



## BULLETIN OF THE PUBLIC HEALTH.

Issued by the Surgeon-General U. S. Marine Hospital Service, under the National Quarantine Act of 1878.

[No. 29. Week ended January 29, 1879.]

OFFICE SURGEON-GENERAL, M. H. S.

Washington, Jan. 29, 1879.

*Yellow Fever.*—The existence of 2 cases at Handsborough, Miss. on Jan. 17th, was reported by the attending physician.

*Boston.*—Week ended Jan. 25th. Deaths from all causes 158, an annual ratio of 22.5 per 1000 of the population. There were 22 cases of scarlet fever and 11 deaths; 32 cases of diphtheria, 12 deaths; 25 deaths from phthisis, 14 deaths from pneumonia, 6 deaths from bronchitis.

*Brooklyn.*—2 weeks ended Jan. 25th. Total deaths 507. Annual ratio 23.5. 131 cases of scarlet fever, 32 deaths; 98 cases of diphtheria, 20 deaths; 48 deaths from phthisis, 92 from acute lung diseases.

*Philadelphia.*—Week ended Jan. 25th. Deaths from all causes 324. Annual ratio 19.2. There were 6 deaths from scarlet fever, 10 from diphtheria, 11 from enteric fever, 58 from phthisis.

*Baltimore.*—Week ended Jan. 25th. Total deaths 159. Annual ratio 22.6. 2 deaths from enteric fever, 2 from scarlet fever, 6 from diphtheria, 28 from phthisis, 21 from pneumonia.

*District of Columbia.*—Week ended Jan. 25th. Total deaths 76. Annual ratio 24. 5 deaths from scarlet fever, 2 from diphtheria, 1 from enteric fever.

*Cleveland.*—Week ended Jan. 25th. Total deaths 49. Annual ratio 16. 1 death from scarlet fever, 8 from diphtheria.

*Milwaukee.*—3 weeks ended Jan. 25th. Total deaths 126. Annual ratio 18.5. 58 cases of diphtheria, 18 deaths.

*Chicago.*—Week ended Jan. 18th. Total deaths 161. Rate 18. 6 deaths from scarlet fever, 15 from pneumonia, 16 from phthisis, 28 from acute pulmonary diseases.

*St. Louis.*—Week ended Jan. 25th. Total deaths 135. Annual ratio 14. 5 deaths from diphtheria, 25 from pneumonia, 14 from phthisis.

*San Francisco.*—Week ended Jan. 17th. Total deaths 93. Rate 16. 2 deaths from scarlet fever, 2 from diphtheria, 4 from enteric fever, 11 from phthisis, 18 from pneumonia.

*Havana.*—Week ended Jan. 25th. 3 Deaths from yellow fever, 12 deaths from small pox.

*Great Britain.*—Week ended Jan. 4th. The average annual death rate for the 23 large cities of the Kingdom was 29 per 1000, being 20 at Brighton and Portsmouth, 26 at Sheffield, 30 at Birmingham, 33 at Liverpool, 36 at Manchester, 26 at Edinburgh, 30 at Glasgow. The recent excessive mortality from acute pulmonary disease is diminishing.

*London.*—Week ended Jan. 4th. Total deaths 1,900. Annual ratio 27.4. Measles caused 34 deaths, scarlet fever 29, diphtheria 16,

whooping cough 65, small pox 13. Of the latter disease 254 cases remained in the hospitals on Jan. 4th. There were 555 deaths from acute pulmonary diseases.

*Dublin*.—Week ended Jan. 4th. Total deaths 306, an annual ratio of 51 per 1000 of the population, 104 of the deaths resulted from acute lung diseases, 4 from scarlet fever, 1 from diphtheria, 22 from small pox. The death rate has risen with great rapidity, and small pox prevails among all classes of the population, 72 new cases were received into the hospitals during the week.

*Paris*.—Week ended Jan. 2nd. Total deaths 947. Annual ratio 25. 7 deaths from small pox.

*Vienne*.—Week ended Dec. 28th. Total deaths 382. Annual ratio 27.3. 15 deaths from small pox, 22 from diphtheria.

*German Empire*.—Week ended Dec. 28th. In 150 cities with an aggregate population of 7,427,000 there were 3,672 deaths, an average of 35.7 per 1000. 45% of the deaths occurred in children under 5 years of age. Diphtheria caused 212 deaths, scarlet fever 93, measles 57, whooping-cough 58, enteric fever 56, phthisis 508. Acute lung diseases 412. Death-rate at Berlin, 26; Munich, 32; Dresden, 24; Hamburg, 23.

*St. Petersburg*.—Week ended Dec. 21st. Total deaths 589. Annual ratio 46. Small-pox caused 37 deaths, enteric and typhus fevers 42 deaths. The disease prevailing in Southern Russia has been definitely recognized by the Russian health authorities as the plague. At Astrakan there were 195 cases, of which 143 proved fatal during the first two days of January. Precautions are being taken by most of the European governments against its introduction into their respective countries.

The report of the government inspector appointed to investigate the cause of a recent epidemic of diphtheria in North London traces the source of infection to the milk supplied to the affected households. None of the ordinary means of infection of milk by polluted water, or by the vicinage of diphtheritic infection in any discoverable form could be ascertained and the report suggests the probability of the infection being derived from some pathological condition existing in the cows.

JNO. M. WOODWORTH,  
Surgeon-General,  
U. S. Marine Hospital Service.

#### NEWS ITEMS AND NOTES.

*Homicide by Imprudence*.—The trial of a man for poisoning a fellow creature through motives of benevolence is, the *Pall Mall Gazette* observes, not a frequent incident in judicial annals. A French clergyman, the Abbe Grisard, has just been placed in this uncomfortable position. On the 8th of Oct. last, a person named Pitancier was stabbed by a ruffian named Galvin. The wound was a dangerous one though not necessarily fatal, and Pitancier was



taken to the monastery of the Pieres du Saint Esprit, at Villejuif, the scene of the crime. There he received all possible care and attention, and the Abbe Grisard meaning to give him a dose of tincture of arnica, gave him tincture of aconite by mistake. Pitancier expired soon afterwards, from the effects of the poison, when it was most reluctantly decided to summon the Abbe before the tribunal of correctional police. The trial has only just come off, and it has ended, as might have been expected, in the conviction of Abbe, on the charge of "homicide par imprudence." A fine was, however, deemed sufficient to meet the requirements of justice. M. Grisard employed no advocate, but conducted his own defence.

**Dietetic.**—"Are oysters healthy?" asked an ancient dame, of her physician. "I am inclined to believe that they are remarkably so," so he, "as I have never yet met with a single one, that complained of being unwell.

**Dr. Biddle's Successor.**—Roberts Bartholow's name is very prominently mentioned in connection with the late Dr. Biddle's chair at Jefferson. Some of the trustees have written to friends of Bartholow in Cincinnati for the purpose of sounding him.

**Scarlatiniform Rashes and Scarlatina.**—The difficulty which attends the diagnosis of scarlatina-like rashes under certain conditions, has received striking illustration in Mr. May's cases, the results of which he has recorded with such honorable candour in the *Brit. Med. Journal* of Jan. 4th. The question whether such eruptions are scarlatinal or not most commonly arises in connection with children, and I not unfrequently find myself confronted by it in the wards of the hospital and elsewhere. But, although familiar enough with the problem, I know of no ready and infallible key to its solution. I have failed to discover any reliable sign by which the simple eruption may be instantly and certainly distinguished from the contagious exanthem which it simulates. It is sufficiently established, I, think, on the one hand, that patients with open wounds from accidents or operations are extremely susceptible to the poison of scarlatina; and, on the other, that a scarlet rash of non-contagious character also frequently occurs under similar circumstances. And it is this equality of antecedent probability which renders the right decision of the question so important, and at the same time so difficult.

That erythematous eruptions closely resembling the rash set up by the poison of scarlet fever, are also produced by other agents, is undoubted. Such are the so-called medicinal rashes which occasionally follow the administration of belladonna, of copaiba, and of quinine. Similar general scarlet rashes have been observed by Dr. Handfield Jones in malarial disorders in children, and by myself in a very marked form in a severe case of tertian ague in a child, recorded in the *Journal* of last year. But, further, I think there can be no doubt that a scarlatiniform eruption, which is not contagious and not followed by the sequelæ of scarlatina, does arise in various traumatic conditions independently of the scarlatinal poison. I have seen it more than



may follow paracentesis thoracis for empyema, after various surgical operations, and in a case almost exactly parallel to the one related by Dr. B. Hicks. One of my own children received an injury to the thigh, which was followed by abscess. There was no external wound; but at the commencement of the suppurative process a general scarlet rash appeared. It could not be traced to infection; but it did not infect others. The rash disappeared in twenty-four hours; it was not followed by desquamation or sequeke. In such a case, as Dr. Hicks points out, the introduction of scarlatinal poison from without by inoculation is out of the question. The eruption must be due to the absorption of scarlatinal poison through the ordinary channels, or of acute or deleterious matter developed in loco, or otherwise a result of the traumatic pyrexia.

Now although there are, I believe, no certain and absolute data by which this "surgical erythema," as I am in the habit of calling it, can be at once distinguished from true scarlatina in its slighter forms, yet there are one or two points, to be noted in connection with it which afford some aid towards a correct diagnosis. Surgical erythema, as far as my observation goes, is constantly wanting in certain leading features of typical scarlatina.

1. There is no swelling of the tonsils, no enlargement of the glands, although the fauces may be reddened.

2. The tongue never presents the strawberry appearance. It is furred, perhaps; but the coating has not the whitish or yellow tint seen in scarlatina.

3. The rash is often not universal, but confined to the body and the parts covered by clothes, the face being free. Sometimes it is in more or less distinct patches, with portions of comparatively clean skin between. It rarely lasts more than twenty-four hours, and is never, in my experience, followed by desquamation; it is not sufficiently intense, and its duration too short. Now, these variations from the perfect scarlatinal type are, no doubt, met with in extremely mild cases of scarlatina. They merely narrow the issue by excluding well marked scarlet fever. The decision between surgical erythema and the slighter forms of scarlet fever can only be arrived at by the additional evidence, by the history and symptoms. Not unfrequently a positive conclusion is impossible, and the only safe practice is to isolate such cases, at any rate for a time.

# THE HOSPITAL GAZETTE

AND

ARCHIVES OF CLINICAL SURGERY.

A WEEKLY JOURNAL OF MEDICINE, SURGERY AND THE COLLATERAL SCIENCES.

EDITED BY

EDWARD J. BERMINGHAM, A.M., M.D., and FREDERICK A. LYONS, A.M. M.D.

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NEW YORK, FEBRUARY 20TH, 1879.

WHOLE No. 73.

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## **SPECIAL NOTICE TO OUR READERS.**

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It is with no little pride that we announce to our subscribers that it is our intention to give them the benefit of our greatly increased subscription list, and of its necessary outgrowth, a large advertising patronage. It has, from the beginning, been our intention to increase the size of the journal, from time to time, as our income from subscribers and advertisers would warrant, and it has also always been our avowed purpose to furnish a first class medical weekly at a price within the reach of every practitioner and student of medicine. During the past six months we have increased our subscription list very largely. Advertisers have become convinced of the fact that the GAZETTE is the best medium, and have extended to us a goodly share of their patronage, and we propose that all of our patrons, both subscribers and advertisers, shall reap the benefit of our increased business and facilities. It is therefore with great pleasure that we inform our readers that with the first issue for March we shall greatly enlarge the journal, giving them between two and three times as much reading matter as at present, and that we shall adopt the size and style of the *London Lancet* (English Edition). With this increased space at our command we shall be enabled to give, weekly, a journal that will meet the requirements of every practitioner, and shall especially aim to give our subscribers a periodical far superior to the high priced weeklies now published. Notwithstanding this extraordinary enlargement, the price of the GAZETTE will remain, as heretofore, at the remarkably low price of \$2.00 per year, postpaid. By keeping the price at this figure we feel that we will very materially augment our subscription list and thereby benefit our advertisers.

For the convenience of those of our subscribers who desire to have their copies bound we shall close this volume, Vol. V, with the issue for February 27th, giving, with the number for this date, an index of the numbers for the January and February numbers and Vol. IV, so that Vol. IV and V may be bound together. We shall begin Vol.

VI in March.\* We regret having to do this, but thought it best to inconvenience subscribers in this slight particular rather than postpone the enlargement until July.

We now make an appeal to each and every one of our subscribers to help us to increase our subscription list. We have no special premiums to offer, as we endeavor always to give our readers the full value of their money. We only promise, that as our subscription list increases, we shall increase our facilities for giving a first class weekly journal, and we ask as a special favor that each subscriber assists us by calling the attention of his medical friends to the merits of our publication, and inducing them to give us a trial. Or, send us the names of those whom you think would be probable subscribers and we will send them a specimen copy.

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## LECTURES.

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### THE SYMPTOMS AND TREATMENT OF ORGANIC HEART DISEASE.

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Two Clinical Lectures Delivered at the Hospital of the University of Pennsylvania.

BY

WILLIAM PEPPER, M.D.,

Professor of Clinical Medicine in the Medical School.

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[Reported for THE HOSPITAL GAZETTE.]

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#### LECTURE I.

This poor fellow's condition is a serious one. His breathing is very defective—during the course of last night and the night before he had some dreadful spells of dyspnoea. In his case the heart trouble, which is very serious, is complicated by dropsical effusion in the chest. In fact, he had considerable pleuritic effusion when he first came into the wards, and this effusion has held its own manfully in spite of all treatment. His strength has failed so rapidly and he has had such dangerous spells of dyspnoea within the past seventy-two hours that I intend to aspirate his chest to-day, in your presence, and to draw off as much of the serum as is possible from the right pleural sac.

The whole subject of dropsy in heart disease is a most difficult one, difficult for two reasons, *i. e.*, because we have two things to deal with, in the first place the cardiac disease, and in the next place its consequences. Each condition renders the other more difficult to understand and to treat.

When there is organic heart disease, and therefore some mechanical obstruction to the circulation, we have impairment of the respiration, engorgement of one or more of the cavities of the heart with blood, and as a direct result either thinning, or hypertrophy of the heart-walls. The heart becomes enlarged and some one or more of its compartments is rendered incapable of thoroughly emptying itself,



hence regurgitation of the blood. Then, in addition to these embarrassments, there are always serious resulting conditions of the other organs, no matter what the heart-lesion, and these other organs are generally affected in the following order, (1) lungs, (2) liver, (3) brain, (4) kidneys, (5) spleen, and (6) the general circulation.

This congestion of the other organs may only amount to a constant state of plethora; venous, passive plethora, or it may be much more active and dangerous in its character. Even this passive plethora is amply sufficient to cause great interference with the functions of these various organs. For instance, a condition of the heart far from grave, is sufficient to cause marked functional distress in the lungs—cough, shortness of breath, and excessive bronchial secretion. In the liver it causes fulness and imperfect elimination and secretion, while blunted mental action and nervous distress supervene as a result of the cerebral hyperæmia. The kidneys secrete scanty and high-colored urine as a result of the renal hyperæmia. If the spleen is congested the sufferer complains of fulness and tenderness over its site.

The distended state of the superficial capillaries, particularly in the face and lower extremities, causes constant congestion of the skin.

These are the sequential symptoms with which we meet in the milder stages of heart disease. When the central lesion is more profound and the heart labors violently, the distress in the other organs is far greater. There is constant and paroxysmal dyspnœa, excessive bronchial secretion, and spitting of blood from local apoplexies in the lung substance, attended with the formation of clots. The liver is enlarged, indurated and congested, and its secretion exceedingly imperfect. The portal congestion grows so great in fact that the whole mucous membrane of the stomach and intestines becomes engorged. The food, as a direct consequence, is imperfectly digested. Piles and hæmorrhoidal excrescences are more or less numerous and painful. Occasionally they bleed obstinately.

The congestion of the peritoneal surfaces causes ascites. The brain is seriously affected; the mind dull, and the spirits greatly depressed. The muscular force of all parts of the body is weakened. The general circulation is more or less engorged. Dropsy appears in the subcutaneous tissues and in the serous cavities of the body. Dropsy of the pleura from hyperæmia and pressure of the enlarged heart upon the azygos veins is very frequent. All these symptoms are dependent upon the cardiac disturbance.

In the treatment of heart disease we have to consider in every case (1) the heart, and (2) the condition of the other organs.

First, then, let us regard the heart itself. As in any case—here there is double aortic disease—we must try to discover how far our patient is suffering from a stasis of blood in the heart—how far the force of the heart muscle has failed so that it is not able to propel the blood properly. Cardiac disease, in most cases, is failure of power. This may even be the case where the degree of obstruction is but small. In the majority of cases where the muscle of the heart is hypertrophied, the propulsive power is imperfect. This propulsive power,

however, may be increased for a time, and the pulse correspondingly unduly strengthened. This is the case only in those instances where there is a maximum of cardiac force with a minimum amount of valvular lesion. This condition is easily recognized by the absence of the serious symptoms of universal congestion, and is usually accompanied by a state of active plethora. The action of the heart in these cases is excessive, and the arteries of the neck are seen to throb strongly. In these cases likewise there is a decided tendency to excitement of the circulation by the use of stimulants, or by muscular exercise.

The above is the condition of heart and consequently of circulation, which calls for the use of cardiac sedatives; so far, at any rate, as the heart is concerned. Veratrum viride, aconite, the bromide of potassium, and the other bromides should be given in small and continued doses. The veratrum viride and the aconite demand, of course, great caution in their administration. It is in diseases of the mitral valve, in particular, where there is a marked tendency to hypertrophy of the left ventricle, that the need for cardiac sedatives is most marked. Never, in affections of the tricuspid valve, and but rarely in those of the aortic, have I seen undue cardiac force.

So much for sedative medical treatment. The diet should be cooling and restricted. Circulatory and nervous stimulants should be avoided. So also, with regard to excitement and active muscular effort. The heart muscle should never be overtaxed.

Occasionally, in these cases, we find it desirable to use some depurative agent. If the general system is plethoric, I usually employ a saline depurative, but such cases are rare. In these instances the bromides are exceedingly valuable, exerting as they do a most beneficial influence over both the heart and the general nervous system. The diet, though restricted, must not be reducing, *i. e.*, the blood must not be reduced in quality by it, although it should be of such a kind as to render its digestion easy.

In many of these instances the valvular lesion has been the result of an endocarditis occurring in early life. Where this has been the case, it is often possible to accomplish great good by continuous doses of the iodide of potassium. Particularly is this the case where the patient is still young. Here moderate doses of this drug should be administered for long periods of months and years, with occasional short intermissions, and will often be followed by most decided lessening of the organic disease. Indeed, under this treatment in young children with hypertrophied left ventricle and mitral disease, I have often seen an entire cure effected. Where the patient is vigorous, and the amount of lesion small, the prognosis is always favorable.

In the majority of cases of organic heart disease, however, particularly as occurring late in life and as connected with poor nutrition, there are good evidences of impairment of power to be found. The heart is increased in size, but its efficiency is greatly diminished both relatively and actually.

Here the nature of the treatment is very different. The most im-



portant indication is to relieve the muscles of all over effort. Even in perfect health, the amount of force necessary to maintain the circulation for twenty-four hours is enormous, enough in fact to raise very many tons one foot. This is so, I say, when there is no obstruction to the heart's action. Add to this amount of force, however, the force necessary to overcome direct and distant obstructions, and you will have some idea of the immense work and the enormous expenditure of energy necessary to keep up life. This enormous amount of force needed must all be generated by the food ingested, while the necessarily impaired condition of the stomach and other organs of digestion adds greatly to the difficulty. This being the case it not infrequently requires the whole force of the body simply to maintain the circulation of the blood. The consideration of all these facts will not fail to impress you with the conclusion that in such a state of affairs the most important thing is rest and the avoidance of all muscular effort.

But I must digress for a moment from the subject in hand and turn my attention to the aspiration of the liquid from this man's chest. He could not possibly live much longer in this condition, the dyspnoea which he suffers is simply terrific. I will select the lowest point possible on the right side for the entrance of the aspirating needle. I find that the liver is enlarged and not much depressed and so I cannot go any lower than the sixth interspace. The effusion is well marked on both sides, but more so on the right.

While the fluid is running into the receiver, I may go back for a moment to the consideration of the question of rest in the treatment of organic heart disease.

The value of rest in this condition is far too often overlooked. Its effects are truly marvellous. I often find persons with serious and advanced heart disease, living in a third story room and going up and down stairs many times a day. When I insist that they have a bed made for them on the ground floor and that they never on any account attempt to mount the stairs, they are surprised to find their lives become new things to them from the moment of the change. Patients with heart disease ought always to sleep on the ground floor and never to go up a single step. It is less fatiguing to walk squares than to mount a single step. In one case the necessary effort is spread out over a large area in both time and space, in the other it is all concentrated into a moment of time. No kind of sudden or strong effort should ever be made by such patients.

In bad cases where the muscular fibre of the heart is extensively degenerated, rest on one floor and in one room is peremptory. In all cases the avoidance of violent muscular effort must be insisted upon.

This man has not only double aortic disease, but also hypertrophy. I have been treating him since his admission with diuretics, counter-irritants, rest, and iodide of potassium. As a result of this treatment he improved greatly, but within the past weeks his condition has been affected by the change of temperature, and within the past seventy-two hours he has been retrograding and has commenced to have what is always to me a sure premonition of the necessity for the



performance of paracentesis, if life is to be prolonged *i. e.*, repeated paroxysms of dyspnoea, for in any one of these paroxysms the heart's action may be so obstructed as to bring that organ to a sudden stop.

The serum withdrawn is dark and a little blood-stained. There are as much as 1  $\frac{7}{8}$  xl, I should say, in the receiver, and the withdrawal of this amount will soon be followed by great relief. I would like to have drawn more, but these spasms of coughing should always be a sign to you to remove the aspirating needle, for its presence might lacerate the now fully expanding lung substance and so some delicate lung capillary be torn and grave hemorrhage ensue. I would far rather repeat the operation than run the least risk of injury. The withdrawal of this amount will, I am sure, cause greatly increased comfort to the patient. The amount of pleural effusion in this case has not been near enough of itself to justify the presence of such excessive dyspnoea, which is mainly the result of the other complications.

[The spasms of cough persisting, the patient was given gtt. x of chlorodyne, which soon quieted him and in the course of a few minutes his breathing became much more quiet and regular, and he expressed himself as vastly relieved by the paracentesis.]

The next question which I want to consider somewhat at length is with regard to the proper diet in organic heart disease. Next to that at rest this is perhaps the item of most importance in the proper treatment of the condition.

Owing to the extreme need of muscular energy each grain of oblongious food taken into the system is a distinct mechanical equivalent of force. We must remember that it is not the masticating and swallowing of food which does good, but its digestion, absorption and utilization. On the other hand, every grain of food taken into the stomach over and beyond the amount which it is able to digest is a source of impediment and weakness. In no disease does the digestive capacity of the patient demand more careful study. The secretion of the gastric juice is impaired, and the muscular coats of the stomach are weakened so that digestion is very gravely interfered with.

While we are glad to generate power in this state of affairs yet we must be very careful not to add to the amount of blood already in the circulation and clogging the heart. The cavities of the heart must on no account, if we can possibly help it, be allowed to be distended by large quantities of blood. Here is another reason why the diet must be restricted and a diet chosen which energizes the system while not adding to the bulk of the blood. The diet must therefore be studied in connection with the state of the system. If we find that the digestion is good and the blood not in abundance, we may allow the patient bread, meat, fruits, and green vegetables pretty freely. Some such patients are greatly benefitted by a lean-meat diet. No patient in this condition is likely to digest oil well. Lean meat is a most energizing form of food, and does not add materially to the bulk of the blood. The amount of muscular effort which can be endured under such a diet is truly wonderful. This is the case in all parts of the world, as has been clearly proven to me by the exhaustive study

of the habits and diet of the various peoples of the world, which I have recently been obliged to make in preparing my book on "Climate and Its Effects on Health and Disease," now in press. Where oil and oleaginous food is not to be had, the hardy races of the world subsist largely upon a lean-beef diet.

In those cases where the digestion is not good there is no diet preferable to one of koumyss, buttermilk, or skimmed milk—milk in some form or other. An exclusive milk diet is most advantageous where the secretions are scanty and dropsy is present as a complication.

Such patients should never eat much at a time, but take food frequently and in small quantities. Where there is a marked tendency to spasms of cough and dyspnœa at night, the patient should never eat anything, except a small amount of stimulus and liquid nourishment for some hours before going to bed, otherwise sleep will be feverish and often interrupted by dreams and distressing cough and dyspnœa in occasionally alarming spasms.

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## SYME'S AMPUTATION AT THE ANKLE-JOINT FOR CLUB FOOT IN THE ADULT.

A Lecture delivered at Bellevue Hospital, N. Y.

BY

STEPHEN SMITH, M. D.

Professor of Orthopedic Surgery in the University Medical College—Surgeon to Bellevue Hospital, &c.

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GENTLEMEN :—You will remember this patient, whose left foot was amputated at the ankle-joint in the early days of the session. She has now perfectly recovered and is supplied with excellent artificial feet on which she walks with ease and grace. The occasion is opportune for calling your attention to the class of cases which she represents, and deducing from her case some useful practical conclusions.

Her disability was congenital talipes-equino-varus of both feet, she has never been able to walk about with any freedom. When she first came under observation about one year ago, the right foot was dwarfed to the size of the foot of a child 10 years of age; the tarsal bones were firmly united at their articulation, and the whole foot was very painful after every considerable effort to walk. It was regarded as not only useless, but an encumbrance, and accordingly I amputated it at the ankle-joint, by Syme's method.

The left foot seemed in a more hopeful condition, being of fair size, without ankylosis, and capable of being brought around so as to give a partial pressure upon the plantar surface. To aid in overcoming the obstacles to rectifying the position of the foot, I exsected the cuboid bone, which enabled me to bring the foot into good position with comparative ease. But the gain in position did not greatly improve her condition; she was never able to walk about without suffering severely afterwards from neuralgic pains through the foot. Every effort was made to improve the condition of the foot by apparatus, and



adapted shoes, but proved unavailing; the foot continued so painful that she at length begged to have it amputated like the other, which had now healed, and gave a firm and durable stump on which she could readily bear her weight. Accordingly the amputation was performed as you resident, and she has made a good recovery, and now presents two firm well rounded stumps on which she will walk with nearly as great firmness as she would, had her feet been well formed. In this adult patient we have an illustration of a class of distortions of the foot which are amenable to no other treatment than amputation. The most persevering efforts may be made to bring the foot into position, but without avail. And even if these efforts are partially successful, it can not be doubted that the feet will remain very inefficient for purposes of progression. They present dwarfed, or atrophied extremities quite unfit for that function. The questions which you will have to consider and answer when such a case comes under your care are two fold, 1, what are the advantages of amputation, and, 2, will the advantages compensate for the risks. The first question you must answer fully and explicitly, for on a proper understanding of the explanation given will depend the answer to the second question. It may safely be asserted 1, that the limb will hereafter be free from troublesome neuralgic pains, and 2, that she can walk with an easy and natural step. I do not take into account the possibility of a neuralgic stump, nor of a painful and tender cicatrix; for the former never, in my experience, occurs at this point, and the latter will not arise if proper care to secure perfect cicatrization is taken. This is effected by removing all incrustations from the small raw surfaces that so often are allowed to remain unhealed, and applying zinc ointment.

The ability of patients to walk easily and gracefully with a properly constructed artificial foot is undoubted. Indeed, the perfection of the functions of the foot is often marvellous; the patient may run, dance, leap, with as much freedom on the artificial, as on the natural foot. A nurse in one of the upper wards of this hospital wore one of these feet for years and none of the staff of resident surgeons knew or even suspected the fact.

If the operation is determined upon, the questions for you to settle are, 1, at what point shall the operation be performed and 2, what method shall be practised. There are two points at which amputation may be performed, viz: through the medio-tarsal articulation or Chopart's operation, and through the ankle-joint. Between these two points you must not hesitate to decide in favor of the ankle-joint. Medio-tarsal amputations are not less fatal than those performed at the ankle joint, and they leave far less serviceable stumps for the reason that there is an inevitable tendency in the stump to turn its face downward, by the elevation of the heel it soon becomes ulcerated and the patient is unable to walk upon it, nor does it admit of the adjustment of a serviceable appliance.

Having decided to amputate at the ankle-joint you must choose between two methods, viz., between that known as Syme's, and that known as Pirogoff's. The former consists in raising a heel flap and



applying it to the extremity of the tibia, and the other in dividing the os calcis obliquely, and applying the cut surface to a cut surface of the tibia. Between these two methods I do not hesitate to advise, and even urge, you to select Syme's method. My reasons for this preference are twofold, viz.: 1. It is the safer operation, and, 2, it gives the more serviceable stump. That it is the safer operation you must infer from the fact that the bone in the flap of Pirogoff is liable to caries and necrosis; when that occurs the process of repair is exceedingly tedious, and may even prove fatal. In the Syme stump union is generally very prompt, sometimes being completed as early as the 15th day. Sloughing of the flap may occur, as after any amputation, but is only exceptional.

2. The Syme stump is the more serviceable. By this I mean that it is best adapted for a good artificial limb. It is claimed for the Pirogoff stump that being longer it is more readily adapted to an artificial foot, but the truth is that this additional length is injurious. And for this reason—the easy working of the applied foot depends largely upon the position of the ankle-joint; if it is low down there is little play of the foot, and the patient has the gait of one suffering from a broken arch of the foot, or splay foot. To give real effectiveness to the foot the ankle-joint must be elevated as high or higher than the natural foot. This position of the ankle Syme's stump provides, hence patients amputated by that method, have an elastic, easy gait, closely resembling the natural. I cannot better illustrate the value of the Syme stump than by quoting the conclusions of one who has had the largest experience of any surgeon in this country in adapting compensative apparatus to stumps formed in this region. Dr. Hudson says:—

“The apparatus as properly constituted and adapted to the Syme stump is artistic, natural in its movements, and in every respect practical and pleasing to the wearer, and contrasts wisely with the artless, anomalous appliances of the “manufacturers of artificial limbs.” Not infrequently intelligent subjects of leg-amputations with very good stumps, when having an incidental opportunity to compare their occasion for an amputation and their condition with those of like occasion who had been favored by a Syme operation and its benefit, have expressed their *indignation at the surgery* they have suffered. In no instance which has come to my observation have inflammation and ulceration occurred to the base of the stump of a tibio-tarsal amputation after the tissues were united healthily and were subjected to the same service as those of the natural heel; nor are there any existing histological data for the anatomist, physiologist, or pathologist by which they can reasonably be led to argue such a consequence. The condition of the stump, its capacity for any degree of service, have proved equal to the condition and capacity of the heel of the other limb.”

## HOSPITAL RECORDS.

## PENNSYLVANIA HOSPITAL, PHILA.

SENIOR SURGEON, G. MORTON, M.D., Surgeon to the Hospital.  
[Prepared for THE HOSPITAL GAZETTE.]

NECROSIS OF THE PHALANGES AND METATARSAL BONES OF THE  
FOOT—IX. AMPUTATIONS—THE FOOT REMOVED BY A SYME  
OPERATION—RECOVERY.

The patient was admitted October 5th, 1878. In 1859, or 1860, he is not sure which, he contracted a chancre, accompanied by non-suppurating buboes, but not followed by any secondary manifestations, such as skin eruptions, sore throat, or falling of hair. Two years later he again contracted chancre, and upon this occasion there was suppuration of the inguinal glands, but no secondary symptoms. His general health, which had been good hitherto, remained, to all appearances good, until about four years before his last admission, when he first began to experience severe pain, which he located between the osseus and the left tuberosity of the ischium. The pain then extended down the left thigh, and was most severe in the course of the tendons, not appearing to have any connection with the bone.

These pains yielded in a measure to treatment, but about three years before admission, he began to experience severe pain in the great toe of his left foot. An abscess formed and burst. He was then admitted to the wards, and his great toe on the left foot was removed by Dr. William Hunt—this was on February 2d, 1876. He remained in the wards between two and three months at that time, and then was discharged, but was only absent for two weeks, when the second toe on the left foot became necrosed, and also was removed by Dr. Hunt. Later still, on March 19th, 1877, he returned, and a portion of the metatarsal bone of the great toe which had become necrosed, was removed by Dr. Hunt. This was the *third* operation.

Leaving the hospital after this operation, he again returned on October 9th, 1877, and the third and fourth toes of the same foot, which had become necrosed, were removed by Dr. Levis, making the *fourth* and *fifth* operations. Again he was discharged, but again he returned on the 16th of April, 1878, when Dr. Hunt removed a portion of the second metatarsal bone—*sixth* operation,

Upon leaving the hospital last summer, he remained well for some time, and had no more trouble until about two weeks before admission, when the tissues around the incision last made became inflamed and swollen, and about a week before his last admission, an abscess pointed between the first and second metatarsal bones upon the plantar surface of the foot, and discharged some very offensive odoriferous pus.

His general health began to suffer decidedly from the time when suppuration was first noticed, in February, 1876. At that time he had chills, fever and night sweats. Since then he has suffered re-

peatedly from night sweats. His weight formerly was 168 pounds. Within the past two years it has never exceeded 155 pounds.

Upon admission, the patient is anæmic. Lungs healthy. Urine clear, yellow and acid. Specific gravity 1012, contains no albumen. Complains of great pain in foot and ankle. An ulcer about two inches in length is found extending along the anterior, lower border of the stump. About in the line of the second metatarsal bone is found a deep excavation. A probe passed in, readily detects a mass of dead bone.

Ordered	Tr. ferri chlor.	gtt. XX, t. d.
	Potas. iod.	gr. X, t. d.
	Quiniæ sulphat.,	gr. VI., daily

and a poultice was applied to the foot.

*October 11th.*—The discharge of pus is very offensive. Carbolized charpie applied with carbolic powder. His appetite is poor, and he has severe night sweats. Ordered good food—milk, beef tea, etc., and aromatic sulphuric acid, gtt. XX at night, to be repeated, if necessary. This evening is feverish.

*October 20th.*—Night sweats somewhat abated.

*October 28th.*—Complains of great pain around the ankle. For a week or more past has had from  $\frac{1}{8}$  to  $\frac{1}{4}$  of a grain of morphia at night.

*November 1st.*—The skin between the first and second metatarsal bones upon the upper surface of the foot has ulcerated, and there is considerable discharge of matter from this point.

*November 2nd.*—Dr. Morton, to-day, amputated the foot in the usual method of Syme, except that he did not remove the malleoli. The hemorrhage was free and required the application of rather more than the usual number of ligatures. An opening for drainage was made in the heel flap through which the ligatures were passed. The wound was then dressed with oxide of zinc ointment and carbolized charpie. As the patient complained of a great deal of pain after the operation  $\frac{1}{4}$  of a grain of morphia was administered and repeated later in the afternoon.

*November 4th.*—Poultice applied to stump twice daily.

*November 5th.*—Limb up to knee of roseate hue, poultice extended up to knee.

*November 6th.*—Ordered R. opii gr.  $\frac{1}{2}$ , quiniæ, gr. ij, every three hours and also two ounces of whisky in punch.

*November 8th.*—Abscess opened above external malleolus.

*November 11th.*—Poultice stopped. Lead water and laudanum applied.

*November 12th.*—Poultice of flaxseed reapplied. Whiskey increased to f  $\frac{3}{4}$  iv.

*November 18th.*—Pus discharged from orifice at edge of incision at external malleolus.

*November 19th.*—External malleolus exposed, another abscess opened above it.

*November 22nd.*—Dr. Morton ordered gtt. x, of tincture of belladonna at bedtime for night sweats.



*November 23rd.*—Last ligature came away.

*November 24th.*—Applied dry dressing of carbolized oil and oxide of zinc.

*November 26th.*—Stump again inflamed. Reapplied flaxseed poultice.

*December 1st.*—Pus discharged from edge of wound at external malleolus.

*December 3rd.*—Had a sudden accession of pain this evening at about six o'clock. He appeared, when seen half an hour later, to be in great agony. Stated that he had had a succession of chills in the afternoon with headache and nausea. Ordered morphia, gr.  $\frac{1}{4}$ .

*December 4th.*—Leg presents a marked erysipelatous appearance this morning for two thirds of the way up to the knee. The stump and leg being very red and swollen and the tissues presenting a somewhat glazed appearance. Pain very severe. Some elevation of temperature. Applied a wet dressing.

*Evening.*—Pain relieved. Applied lead water and laudanum and cloth to be wet from time to time when it gets dry.

*December 10th.*—Decidedly better. Swelling has in great measure subsided. Erysipelas, for the present, over. Dressed parts with unguent. zinci oxidi. Discharge somewhat less profuse and less offensive.

*December 11th.*—This evening feels much better and has little or no pain.

*December 16th.*—Swelling has subsided. Discharge more profuse and offensive. Feels much better now than he did before the last operation.

*December 20th.*—Has a great deal of pain again. Stump inflamed, red and swollen and tender to the touch. Poulticed. His temperature this evening was 101°.

*December 22d.*—Pain severe. Stump as much swollen as ever and discharging very offensive pus profusely from openings.

*December 24th.*—Patient was etherized while Dr. Morton made two free incisions upon either side of the ankle and two or three ounces of very offensive creamy pus were evacuated. The bleeding was slight and easily controlled by cold and elevation. After the operation he had great pain and was ordered morphia  $\frac{1}{4}$  gr. Poultice applied.

*December 25th.*—To-day he feels somewhat more comfortable. Temperature lower.

*December 30th.*—Very much more comfortable. Swelling has greatly subsided and tension entirely relieved. Discharge now very slight, though still very offensive. Stump dressed with carbolized charpie.

*January 1st, 1879.*—Up on crutches for first time since operation and feels wonderfully better.

*January 6th.*—Continues to improve. Has not had pain enough since Dec. 30th to require an anodyne.

*January 27th.*—Stump almost entirely healed. Looks well, and is in fact entirely convalescent.

## PERISCOPE.

### GLEANINGS FROM OUR FRENCH AND GERMAN EXCHANGES.

BY

JNO. A. WYETH, M. D.

#### DECUSSATION OR NON-DECUSSATION OF MOTOR IMPULSES.

At the May and June session of the French Academy of Sciences, Brown-Séquard detailed his researches, demonstrating that motor impulses from the brain did not necessarily decussate in their transit to the muscles. He had observed that transverse sections of one lateral half of the medulla at the same point, produced at times paralysis of the same side or of the opposite side, or of both sides, and at times produced no paralysis whatever. Cauterization of the surface of the hemispheres produced contractions or paralysis on first one side and then on the other without any regularity. Even in man, where the lesion had been known to exist in identical points in different individuals, the results were extremely variable.

He concludes that we must abandon the idea that motor stimuli from the brain to the muscles necessarily decussate (in part or altogether) at the base of the brain or elsewhere.—*Progres Medical*, Dec. 28th, 1878, p. 997.

#### NERVE TERMINATIONS IN THE NON-STRIATED MUSCULAR FIBRES.

At the same session, Mr. Ranvier, read a note on the above subject. After treating involuntary muscular tissue successively with citric acid, chloride of gold and acetic acid, he had observed that an extremely delicate and complicated nervous network spread itself out upon each fibre. He considers the arrangement somewhat analogous to the nerve terminations in voluntary muscles—*Ibid*.

#### REMOVAL OF THE ENTIRE FEMUR—COMPLETE REPRODUCTION OF THE BONE—RECOVERY WITH USEFUL LIMB.

Dr. Bockenheimer of Frankfort a. M. Patient, girl aet. 11—Had been healthy, to 7th year, when she was seized with an acute inflammation of the right knee-joint which continued with more or less severity for about three years, at the end of which time she was suffering from extreme emaciation, due to the prolonged disease. On Feb. 12 1878, Dr. B. operated, intending to resect the knee-joint. Having disinfected the room with a 5 per cent carbolic spray and washed the entire limb with carbolic solution, the joint was laid open, the ankylosis broken up by forced flexion and the carious extremity of the *femur* removed by the saw. The medullary canal was found to be infiltrated with pus and the bone itself separated from and lying loosely in the periosteum. The incision was continued in the anterior

median line of the thigh and the entire femur removed. There was very little difficulty in the separation of the periosteum and sequestrum, excepting at the points of insertion of the muscles at the trochanters. The articular end of the tibia was also removed. There was no severe bleeding, no ligatures used, the wound was thoroughly washed out with a 3 per cent carbolic solution, closed by carbolized silk sutures and an extension apparatus applied. The limb was wrapped in cloths saturated in 3 per cent carbolic wash and these were changed every two or three hours. No unfavorable symptoms followed, and by the first of July 5 months the recovery was so complete that the child could stand without assistance and in the latter part of July she was able to move about with assistance of a suitable apparatus. There was 4 c.m. (one inch and a half) shortening, of which  $\frac{1}{2}$  c.m. was due to removal of tibia. *Deutsche Medicinische Wochenschrift*, Dec. 4, 1896.

#### ETHYL BROMIDE.— $C^2H^5Br$ .

Kabuteau gives the following as the result of his experiments to determine the difference in the actions of this new anæsthetic and chloroform and ether.

1. Inhaled, it induces absolute anæsthesia as rapidly as chloroform, in dogs, rabbits and frogs.

2. The anæsthesia passes off and consciousness is restored, in animals, quicker after inhalation of ethyl bromide than chloroform.

3. A hypodermic injection of morphia, before the inhalation of ethyl bromide, produces symptoms analogous to the combined action of chloroform and morphia.

4. Ethyl-bromide is not as irritating as chloroform. It can without danger or inconvenience be introduced into the external ear, stomach, or other mucous surfaces, excelling in this respect ether as well as chloroform.

5. It does not impair the appetite. Taken in doses of 1 to 2 grammes (15 to 30 grains by weight) it produces no anæsthetic effects in man.

6. It is extremely insoluble in water.

7. Ethyl-bromide is probably eliminated by the air passages. Taken into the stomach only traces of it can be found in the urine. It is not converted into a salt of bromine in the economy.—*Deutsche Medizin. Wochens.* Jan. 21, 1895, p. 637.

#### MELIOW—HYSTERO-LAPAROTOMY ON ACCOUNT OF AN IMMENSE FIBROID TUMOR OF MANY YEARS GROWTH.—RECOVERY.

Patient, female, æt. 46. Tumor extended 16 c. m. ( $6\frac{1}{2}$  inches) above the pubes and spread out laterally 18.5 c. m. Hemorrhage constant and could not be arrested. Operation under spray. Incision in linea alba commencing two inches above pubes, and carried along umbilicus. As the tumor was drawn out through opening, the small intestine protruded *en masse*, the reduction of which occupied several minutes. Tumor adherent to descending



colon and bladder. Pedicle transfixed by long needle and abdominal wound sewed up. Carbolic dressings. Sixteen days tumor sloughed away. Recovery prompt and complete.—*Ibid*, Nov. 9, 1878, p. 766.

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H. SMITH.—UNUNITED FRACTURE OF PATELLA—OPERATION UNDER SPRAY.

Sailor, æt. 22. Year ago broke right patella which united by ligamentous union. 15 weeks later he fell and the fragments were torn asunder. After this he was unable to extend the leg or walk without crutches. The knee-joint was opened under "Lister," the fragments were loosened from adhesions to the condyles, the adjacent surfaces cleanly scraped and united by silver sutures, the quadriceps extensor having previously been divided subcutaneously about two inches above the joint. Horse-hair drainage tubes were inserted and the wound closed. No fever followed. Prompt union. Fifth week passive motion. Splint discontinued. Eight weeks after the operation patient able to walk about and can bend leg to an angle of 45°. Fragments in exact apposition.—*Lancet*, 1878. *Centralblatt für Chirurgie*, No. 45, p. 768.

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DEPRÉS.—TO FACILITATE THE INTRODUCTION OF INSTRUMENTS IN THE BLADDER.

It is advised to inject the urethra full of oil, close the meatus between the fingers and request the patient to urinate. With the relaxation of the sphincter vesicæ the oil rushes from the distended urethra into the bladder. In this manner Deprés has succeeded in introducing with ease lithotrites and other instruments which could not be introduced by simply oiling the instrument as is the usual practice.—*Centralblatt für Chir.*, No. 47, p. 793.

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ALT.—CLEFT PALATE.—LOSS OF SPEECH.—STAPHYLOGRAPHY.—RECOVERY.

Patient who had learned to talk up to 2½ years of age, was left deaf and dumb after an attack of scarlet fever. At seven years of age Alt operated for cleft palate which extended to the point of the uvula. The operation was successful, hearing was restored and he was again able to talk.—*Ibid*, p. 798.

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V. MASSARI.—BOZEMAN'S OPERATION FOR URINARY FISTULA.

Two cases of urinary fistulæ cured by Bozeman's method and reported by von Massari.—See *Wiener Mediz. Wochen.* 1878; No. 25 and 26, and *Ibid* No. 47, p. 798. •

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TILLAUX—FOREIGN BODY IN RECTUM—EXTRACTION—DEATH.

Patient, Male, 35,—three days previous had pushed a bougie in the rectum. One end could be felt by digital examination, while

the other end could be felt in the left iliac fossa by placing the hand over this region and moving] the lower end. As the hand could not be introduced on account of cicatricial contraction of the bowel, a stone forceps was used in the extraction. No hemorrhage followed and although the patient reacted well, death followed in two days. Autopsy.—Incipient peritonitis in region of sigmoid flexure and ulceration patch in wall of colon, about 50 square centimeters in extent, which had been caused by the pressure of the bougie.—*Centralblatt für Chir.* No. 47, p. 799.

## NEWS ITEMS AND NOTES.

**Mary Fletcher Hospital**—This magnificent hospital was formally opened in Burlington, Vt., on the 22nd of January, with appropriate ceremonies. The principal address was delivered by Dr. Roosa, of this city, who is also a member of the Faculty of the University of Vermont. The Hospital is thoroughly built and magnificently equipped, and has a fine amphitheatre capable of comfortably seating 175 persons. This is intended for the benefit of the medical class of the University of Vermont, which is adjacent to the hospital. The first operation was performed on the morning of January 23rd, by Dr. James L. Little, of New York, Prof. of Surgery in the Univ. of Vt., and Surgeon-in-Chief to the Hospital. It was the removal of a large fatty tumor from the shoulder, and was done under Lister's method. The amphitheatre was densely thronged, and the practical inauguration of the institution by the adoption of Lister's method was hailed as a good omen by all the friends of this noble charity.

**Warm Fomentations to the Head in Cases of Uterine Hemorrhage**—Dr. Koehler (*Allg. Med. Central-Zeitung*, No. 1, 1879) states that he has for the last seven years, in cases of uterine hemorrhage, applied warm fomentations to the head to prevent anæmia of the brain and also to the heart. Hot sand-bags are also very efficient, and the patients often will bear sand which is so hot that it can scarcely be touched by the hand. As soon as the fomentation or bag has been applied, consciousness is restored; the pulse grows stronger; the patient herself states that she feels better, that the ringing in the ears has ceased, and that she likes the appliance. As soon as it becomes cooler, the wishes it to be renewed. Dr. Koehler has, he says, saved patients even in most dangerous cases of hemorrhage by this proceeding, by which the physician never loses time, as the fomentations may be watched and renewed by any one. This method has been found equally efficient in anæmia caused by epistaxis, hemorrhages produced by wounds, etc.

**Obstetrics and Diseases of Women.—Menstruation During Pregnancy.** The above mentioned fact has been observed by Dr. Charles (*Gazette des Hôpitaux*, 1878, p. 148) in a woman aged 24, who menstruated regularly during the whole of the nine months of her pregnancy, and was delivered with much difficulty of a still-born child. In her



second pregnancy, she menstruated during the first months ; the flow then suddenly ceased till the eighth month, when a violent metrorrhagia came on; which was, however, stopped by two days' rest. A few days before delivery, a new metrorrhagia came on, which was stopped by plugging the vagina, and was followed two days later by a normal confinement. The author suspected from the last hemorrhage that there must have been a marginal insertion of the placenta.

**"Nursing" and "Doctoring."**—The proper and sole functions of the nurse are to minister to the personal needs and comfort of the sick, and to carry out the directions expressly given by the medical attendant. When any discretion beyond the simplest and most obvious exercise of common sense is left to a nurse, confidence is misplaced, and a grave error committed. The practice of leaving anything to the discretion of nurses in regard to the administration of medicines is, we trust, extinct. The nurse who gives a dose of physic "out of kindness" is not to be applauded or even excused, but rather condemned for a breach of discipline and the usurpation of functions wholly apart from her own. We are entirely in accord with the remarks offered by Dr. Hardwicke at a recent inquest, in which a nurse gave seven drops of laudanum "out of kindness." It is most important that the nurses of hospitals, infirmaries, and the sick wards of workhouses and other institutions, should not be allowed to give medicine to patients under any pretence, or on any occasion, except expressly directed to do so.—*Lancet*.

**Transplantation and Replantation of Teeth.**—Transplantation of teeth from one person to another is a subject which has always the privilege of exciting curiosity, as at the present moment; it has indeed a tolerably copious history, ancient and modern. In the days of Rowlandson, the question had become so notorious, as to call forth one of his best caricatures. In the museum of the Odontological Society will be found an amusing sketch of the charlatan, who has induced sweeps and beggars to come to his rooms to supply the dental deficiencies of his wealthy clients. The wrinkled belle and padded beau may be seen criticising the handiwork of the quack, while the toothless wretch approaches the door and looks with dubious face at the coin he has received as an equivalent for his lost tooth. There is little question that the practice was known to the ancients ; and there is reason to believe that both the Israelites and ancient Egyptians performed the operation. Natural teeth, fastened in by gold wires, have been found among the mummies. Transplantation of the teeth is not only physiologically possible, but was warmly advocated by John Hunter in 1783, and again in 1788. Whether it is, however, justifiable, as more than a very exceptional resort or expedient, is a very different matter. There are the obvious risks of severe inflammatory symptoms supervening; the doubtfulness of the new tooth fitting accurately the old socket; the known impossibility of preserving the vitality of the dental nerve-pulp; and the more than probability of not obtaining perfect vascular union between the socket and the periosteal membrane of the tooth. Added to these sufficiently



cogent objections to the operation, we have, it has been pointed out, the rather remote possibility of transplanting the germs of disease with the tooth. There remains the ethical question of maiming one person to beautify another. That it has been the dangerous plaything of quacks and the bait of imposters is probably a matter that we need not here discuss, although it is certainly a point which it would be well should not be forgotten. Replantation of an extracted tooth needs no comment; it is as well established in dental practice under certain limits, as the resection of bones or excision of joints; and all standard authors, including Wedl, Tomes, and Mitscherlich, justify and advise its performance under a variety of stated conditions. It has been employed rather extensively during the last few years in one of the London hospitals.

**Transplantation of Teeth.**—A remarkable experiment in the transplantation of teeth is recorded in the *Gazette des Hôpitaux*, No. 2, 1876. On July 30th, M. Pietkiewicz extracted an anomalous right lower lateral incisor, which grew under the tongue in a young woman of twenty-six, and planted it in the upper jaw on the same side, in the alveolus of the lateral incisor, which he had just removed for extensive caries, and which was rotated congenitally on its axis. At the same time, by a special apparatus exercising constant pressure, he was able to bring back the right inferior canine into line. In spite of an accident, six weeks later, the experiment succeeded perfectly, the tooth becoming fixed with great firmness. It has been long known to be possible to replace a tooth just removed by another similar to it in regard to age, volume, form, etc., if recently extracted. Indeed, Professor Alquié of Montpellier showed, in 1858, that a carious tooth could be replanted after resection of its decayed portion. But it is pointed out that, in M. Pietkiewicz's case, there were very remarkable anatomical differences between a lower and upper lateral incisor. The root of the former is finer, and flattened transversely and grooved; that of the upper is stouter and rounded. In fact, the fang of the lower by its means filled the upper alveolus, while at the same time it was considerably too long for it, requiring removal of a third of the crown to bring the edge into line with its neighbours. In spite of all this, the success was perfect, and suggested to the surgeon mentioned the possibility of utilising anomalous teeth for transplantation, even to replace others not anatomically analogous to them, the difference in shape being remedied by cutting and shaping with instruments. The teeth of other mammals might also, perhaps, be successfully employed for the same purpose.

**Hippophagy.**—The committee for encouraging the use of horse-flesh as an article of food have issued a return showing that the number of horses, asses, and mules slaughtered in Paris for consumption in 1874 was 11,319, or 700 more than in the previous year. The continued increase in use of horse-flesh is, they say, a proof that the prejudice against it is being gradually overcome. A prize of 1,200 francs was awarded by M. Decroix to the founder of the first shop for the sale of horse-flesh in London, opened on May last. The

venture, during the four months it was carried on, did not, however, meet with all the desired success, the chief reason for which was (the committee say) that the director was quite ignorant of the English language. The committee now offer a medal of honour to any English butcher who shall take up the trade and continue it for three months at least. But, till English cooks are more skilled in concealing their raw material, and till English prejudices among the working classes are less intense against even Australian beef, there is little hope of a demand for horse-flesh.

**Intravenous injection of Milk in Anæmia.**—N. WULFSBERG has made a series of researches on animals on the effects of the intravenous injection of milk, recommended by Gaillard Thomas, as a means of preserving life in case of hemorrhage and other forms of anæmia. He injected about 250 grammes, and examined the blood, especially with a view to determine whether, as Donne stated in 1844, the globules of milk were converted into white corpuscles. He found that the white corpuscles undoubtedly increase in number, but only after having first taken up—in fact, eaten—the milk spheres. He was unable to preserve the life of dogs by this means; their body weight diminished, and they died without obvious disease, and he found hæmorrhagic infarcts in the lungs. He found it to be impossible to maintain the life of animals by subcutaneous injections of fresh milk as they became atrophic. If about .75 per cent. of the estimated weight of the blood were withdrawn from dogs they bore the intravenous injection of milk well; but when large quantities were introduced they rapidly died. The injection of milk caused the sounds of the heart, which were previously inaudible, to become clear and distinct. He thinks, however, a milk injection can never supply the place of an injection of blood.

**A Large Child.**—On Christmas-day, 1852, I attended a patient in her confinement, and the newly born child weighed *twenty-one* pounds. I had attended the same patient in some previous confinements, and all the children were exceptionally large when born; but the one born in 1852 appeared to be considerably larger than the others, and I requested that it might be weighed. Not long after its birth, the child was taken to the house of a neighbouring farmer, and the farmer's wife, who was pregnant at the time, was so struck with the size of the child that she burst out crying when she thought of what the mother must have gone through in giving birth to such a child. On this point, I would only say that the labour was not by any means a very severe one. Several of the members of this family and all the brothers are very tall and very large. The weight of the largest new-born children which I find recorded is eighteen to twenty pounds. I have never heard or read of any case beyond twenty pounds, and that in only two or three cases.—C. W. CHUBB, M. R. C. S.—*Brit. Med. Jour.*

**Control of Hemorrhage in Amputation at the Hip-joint.**—Mr. Alfred Pearce Gould performed the operation of amputation at the hip-joint on the 7th inst. at Westminster Hospital. The patient was a young man, aged twenty-eight, in whom Mr. Gould had resected the



joint. The hemorrhage was controlled by an original device of Mr. R. Davy's, and so completely that only about three ounces of blood were lost. Mr. Davy compresses the common iliac artery by introducing a straight wooden rod, with a bulbous end, carefully into the rectum for about nine inches. The whole length of the rod is about twenty-two inches. It requires, of course, considerable knowledge to apply this instrument accurately and to use it harmlessly. But in skilful hands, the slightest elevation or depression of the handle, when once the instrument was brought to bear on the vessel, was enough to stop or allow the flow of blood.

We were struck with the complete anæmia of the stump when Mr. Davy lightly raised the handle of the stick. Notwithstanding the slight amount of blood lost, the patient unfortunately died on the fourth day after the operation. The post-mortem examination showed that the parts where pressure had been applied to control hemorrhage were quite uninjured. The chief morbid appearances were extensive thrombosis of the veins of the opposite limb, extending into the common iliac vein.—*Lancet*.

The Hygiene of Sight.—Dr. Jaral has communicated to the Societè de Biologia, the result of his researches on the hygiene of sight. According to him, the rapid increase of near sightedness in France is due to the overexertion and fatigue of the eyes. It is well known that, after looking fixedly for some time at a piece of chequered stuff, the sight becomes troubled, the same thing will occur in reading a book which rests on a table; if, however, it be moved up and down, the fatigue will be removed. Another origin of fatigue to the eye is the black lines on white ground, such as they exist in almost all the books. The eye is not achromatic; and if the blue color of the solar spectrum be suppressed, the spectrum of diffusion on the retina is to a certain extent avoided, which relieves the eye greatly. Therefore, the printing paper ought to be of a yellowish, wash leather color, such as is found in Roman Catholic prayer-books. Another cause of fatigue is the length of the printed lines, such as occur in German books and magazines.



# THE HOSPITAL GAZETTE

AND

ARCHIVES OF CLINICAL SURGERY.

A WEEKLY JOURNAL OF MEDICINE, SURGERY AND THE COLLATERAL SCIENCES.

EDITED BY

EDWARD J. BERMINGHAM, A.M., M.D., and FREDERICK A. LYONS, A.M. M.D.

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## LECTURES.

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### THE TREATMENT OF ORGANIC HEART DISEASE.

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Two Clinical Lectures Delivered at the Hospital of the University of Penn.

BY

WILLIAM PEPPER, M.D.

Professor of Clinical Medicine in the Medical School.

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(Reported for THE HOSPITAL GAZETTE.)

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## LECTURE II.

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I have had the patient, whom I aspirated last Friday, brought again before you that you may notice the marked improvement in his symptoms. On Saturday and Sunday nights last, that is, upon the second and third nights after aspiration, he had a very bad time of it; so much prostrated was he, in fact, that on Monday I was led to aspirate again when I drew off  $\text{f} \frac{5}{8}$  lxxij (72) of yellow serum. Upon this second occasion I entered the trocar in the seventh interspace—lower down and further round towards the axilla, than was the case on last Friday. Since this second aspiration the patient has been exceedingly comfortable except for the first twenty-four hours, or so, when he was greatly prostrated by a copious albuminous expectoration. He must have expectorated altogether at least a quart of ropy, thick, frothy, whitish sputa. This is a very frequent occurrence after the operation of paracentesis thoracis. I have seen the sputa thus expectorated so thick in some cases that the patient would pull it out of his mouth in a long string. It is a secretion from the bronchial tubes of the compressed lung, whose congested vessels, as it expands, relieve themselves thus promptly. This expectoration nearly always causes great temporary prostration, but is usually followed by marked relief.

There is still some serum left in both pleural cavities, and also a small amount of it in the pericardial sac, but I think that we have gained rid of the bulk of it.

I had spoken to you, at my last lecture, I think, of those cases of heart disease in which there is no failure of power but rather an undue amount of force, and had mentioned the sedative treatment as the proper one. I alluded, I think, to those cases in which there is considerable obstruction to the circulation and a marked deficiency of power. The treatment in such cases I told you was (1) to conserve or save the power of the heart as much as possible; (2) to prevent continued disarrangement; (3) to regulate cardiac action; and (4), if possible, to remove the original lesion.

Under the first head I dwelt upon the importance of rest. Now there are a great many cases of heart disease in which the heart is so strong that the patient need not be obliged to give up his business, and may be allowed to remain at work, provided he is moderate and avoids all wear and tear. Gentle moderate walking is of the greatest service to such patients. There must be no needless running hither and thither. If this rule is observed it is wonderful how long the natural vigor of the system will remain unshaken. To maintain the heart, in addition to moderate exercise, good food is requisite.

There is no danger of sudden deaths occurring in such cases if the patient will only take things moderately. Sudden death from heart disease occurs usually from one of two causes; (1) where the heart has gone on to extreme fatty degeneration so that the slightest strain causes rupture of its walls, and (2) where from the same cause, viz:—a sudden strain—an intense stress of work is thrown upon the heart as to bring it to an unexpected and final halt. Moderate exercise may always be indulged in without any danger of sudden stoppage of the heart. It is a great mistake to slur over this point in your dealings with your patient. The patient's friends, perhaps, have led him to believe that death may overtake him at any moment and if you desire to eradicate this idea from his mind you must be entirely frank in your dealings with him.

In other cases where heart-failure is marked I dwelt upon the importance of an extreme degree of rest. Kneading of the muscles and very gentle exercise only being enjoined. Where there are marked secondary congestions this is very important.

I called attention also in my last lecture to the indications and counter-indications for diet. The diet must be cautiously adapted to the patient's wants. I directed your thoughts also to the fact that in severe heart disease more distress is caused by over than under-eating. Nothing more should be taken in the evening than a cup of broth or a glass of milk. If the patient be much exhausted some whiskey or brandy may be given with the milk.

Passing then from those questions of rest and diet which I discussed pretty fully when I was last with you, let me now speak of the other indications, viz:—(1) The treatment of the functional embarrassment, (2) of the cardiac distress, and (3) of the original heart-lesion itself.

The first head embraces all the various kinds of local congestions and effusions. No part of the body is safe from these. The symptoms are referable to every organ, and relief to the central lesion affords relief to these local symptoms. When the nerves, or kidneys, or stomach are deranged and all out of sorts, you may be sure that the distress comes from the condition of the central organ. First, then, in these cases, direct your treatment to the heart itself, and do not be hasty to apply special remedies, such as nerve tonics, or anodynes, or antispasmodics for the nervousness, or to quiet the cough. These remedies may interfere with the digestion, disorder the stomach, dam back the blood, and so radically increase the cardiac distress. *All the symptoms will subside if the heart be but properly treated.*

For the relief of congestions the best remedies are counter-irritants applied over the affected part. Where nervous and head symptoms predominate apply dry-cups to the nape of the neck, over the posterior part of the chest for pulmonary congestion, and over the kidneys and liver for renal, or hepatic hyperæmia. Use such remedies, in fact, as increase the discharge of a thin, watery secretion from the affected organ. In pulmonary congestion joined with counter-irritants externally, muriate of ammonia given internally is exceedingly serviceable. In cerebral congestion advantage may be gained from the use of the bromides. In gastric congestion use the salts of mercury. These should not be given for their constitutional, but for their local effects. Their use should not be persevered in for any length of time. The best form for occasional use is blue mass.

When the appetite is poor, the stools insufficient, the liver tender upon palpation, the secretions of the intestines scanty, blue pills followed by a saline laxative often afford extraordinary relief. These remedies will relieve the nervous and cerebral symptoms and reduce the pulmonary congestion. The rales will disappear and the breathing become easier. Relief of the circulatory embarrassment will also follow.

The liver is the organ most frequently attacked, but when one organ suffers all the others sympathize. There is an increased stasis of blood in every other part. The liver is particularly predisposed to passive congestions. Next to the liver, in point of the frequency with which they are attacked, come the stomach and spleen. The best remedy for these conditions, as I have just told you, consists in mercury, followed by a mild saline laxative and in the use of counter-irritants externally applied.

In congestion of the kidneys with albuminuria, which often occurs, you may make up your mind that there is no organic renal disease, provided the urine contains no tube casts. When no tube casts are present the relief obtained by means of the proper treatment will be entire. Renal and hepatic congestion are often associated. Where this is the case the portal circulation should be depleted by means of a saline laxative and the congestion of the kidneys relieved by means of digitalis together with a saline diuretic.



Digitalis is very often indicated on account of its action upon the heart. But rarely, indeed, are we unable to use it.

If there be an anæmic state of the system with watery blood and deficiency of red globules, iron is usually well borne and relieves the renal congestion. Its use, however, requires great caution and judgment. Generally in disease of the heart there is a condition of plethora,—a strong contra-indication to the use of iron, but sometimes the oxidation of the blood is not properly performed and the nutrition is imperfect and hydraemia supervenes. Here, although there is too much blood, what there is of it is too poor. Passive congestions dependent upon poverty of the blood and deficiency in circulation will bear you together with diuretics and saline laxatives. The best form of administration is in a laxative ferruginous water, or a diuretic ferruginous mineral water, or in the shape of Basham's mixture. So much for the congestive functional disorders.

We now come to the consideration of the treatment of dropsies in the form of œdema, or anasarca, or ascites, or hydrothorax, or hydro-pericarditis. So too with regard to the venous stases which relieve themselves by passive transudation.

In treating these conditions properly we must first treat the heart and then the distended vessels. Dropsies as a general thing may be separated into three groups: (1) general anasarca, (2) ascites with portal congestion (3) hydrothorax with stasis of the blood in the ærvgos veins.

In the treatment of dropsies as complications of organic heart disease counter-irritants are usually of great service—cupps, blisters, iodine painted on the surface, or iodine with croton oil. These all draw the blood to the surface and deplete the over-distended vessels. But dropsy as a general rule demands more powerful measures. And here we first fall back on diet, for operative measures should always be regarded as a *ultima ratio*. If serum can only be absorbed we all know that it is just as nutritive as whey, or milk. Try therefore to produce absorption by all the means in your power. While the congestions continue, the dropsy will continue. At the same time careful attention must be paid to rest and hygiene.

In some cases these three things, rest, diet and hygiene, may be enough to cure dropsy. It is really wonderful how many cures have been effected by rest and a skimmed milk diet. In this way the effusion may all in time be absorbed.

In dropsy, as in the other complications of organic heart disease, it is very necessary: (1) to attend to the disturbed heart and (2) to resort to means for the discharge of liquids from the body.

In cases of anasarca the most rapid relief is obtained by the use of potassium iodide, excepting where we have a very bad heart to deal with potassium is perfectly safe. Where the heart is very weak we fear the effects of the collapse which always follows profound sweating. In such cases we should always have ammonia and brandy at hand to administer in case of any danger of stoppage of the heart. Where potassium is out of the question, laxatives, saline diuretics, or the warm Vaporææ may be employed.

Ascites is properly treated by saline laxatives. Hydrothorax by diaphoretics and diuretics, the salts of potassium, iodide and acetate, with digitalis. Very often in spite of careful diet, absolute rest, cardiac stimulants, diaphoretics, and diuretics the case continues to progress from bad to worse. Then we have to resort to operative measures, paracentesis thoracis, or abdominalis, or tapping. The two former operations are entirely free from danger if properly performed. Both of them give relief, but being bungling and mechanical, only do so for a time, and should therefore never be attempted except when all other measures fail.

Caution is very desirable in the treatment of diseases of the heart. The physician should always be on his guard for the development of complications. A latent effusion may gain much headway without any outward sign. Remedies are of no avail apparently, the patient steadily grows worse and it is not until the *post mortem examination* that a latent effusion is revealed. You should therefore always periodically go over your patient's whole body from head to foot—examine his urine, chest, liver, lungs and stomach and be sure that no effusion is gaining headway. The development of sudden symptoms is generally due to indirect secondary disturbance.

Of the removal of serum from subcutaneous tissue by tapping I must speak to you more at length. As long as you can get rid of general anasarca by medicinal means stick to them. The operation in this case is much more serious than in either of the others just mentioned.

The dropsy mounts up the legs, involves the scrotum, producing œdema, and attacks the penis, rendering it anasarcaous; twists it on itself so that natural urination is entirely out of the question, and a flexible catheter has to be kept in the bladder for weeks at a time. The various functions are seriously interfered with. The mere contact of anything with the skin sets up eczema which at once runs into ulceration and sloughing. The general anasarca of organic heart disease is a most serious condition.

I have had this second patient brought in that he might serve as an illustration of some points in connection with this complication. In his case organic heart disease and renal disease are combined. Whether as separate diseases, or not we could never say—mitral regurgitance with chronic nephritis. The anasarca in his case has been most frightful. At first he had pulmonary œdema so badly that every night there seemed to be a fight with death. No sooner was this relieved than anasarca came on. This was so obstinate that we were obliged to resort at last to the operative treatment. We used (1) local vapor baths, and (2) we made a number of minute punctures in the skin of the legs with very delicate needles, or with a sharp bistoury. These punctures should never be made unless you are obliged to resort to operative measures, and they should be repeated just as rarely as possible. Otherwise sloughing, or erysipelas may follow and lead to the entire death of the skin.

In this case the anasarca was so terrible that we had to resort to punctures twenty times in each leg during a period of two months,



and every time we tapped it we drew at least three pints of serum from each leg, *i.e.* we obtained in all 60 quarts of serum in sixty-one days. No sooner did we allow a limb to go untapped for even three days at a time than it grew so big that the patient could not move it, and worst of all the pulmonary oedema would come back, causing marked dyspnœa, which nothing removed.

As a result of our tapping you see the condition which the right leg presents—a most dreadful slough with all the tissues laid bare down to the muscle. There is of course no possibility of restoration. Since the sloughing has commenced the dropsy has all disappeared. The drain of pus upon the system, however, is so terrible that scarcely any strength can endure it.

In spite of all this combination of ills, however, the man has had a very good time during the winter; has been cheerful and merry and has really seemed to enjoy life. I may possibly be able to check this ulcerative action. It is hard to say how far the puncturing has been the cause of it in this case, for the leg would have sloughed if it had not been tapped.

It is barely possible that punctures made with a disinfected needle would not be followed by sloughing, and that sponges dipped in a carbolic acid solution and applied over the punctures will act as absorbents, will not check the flow of serum, and will prevent any unhealthy conditions of the parts, but I doubt it.

This brings us to a consideration of the treatment of the heart lesion itself.

We frequently find mixed up with the organic lesion a faulty condition of the nerve centres presiding over cardiac action, and unless these nerves are regulated the heart is, of necessity, still further embarrassed. There are very few cases of organic heart disease that do not present traces of functional nervous irregularity.

There are certain remedies which afford relief in these cases. That is unless the ganglia themselves in the muscular substance of the heart are degenerated, which is often the case. The drug of most value is digitalis and it is needed in all cases from time to time. It may be given in the form either of an infusion, or of a tincture, or in the shape of digitalin. It is needless to say that digitalis is not a universal remedy. In many cases it is not borne by the stomach; particularly so that the case if that organ is deranged and congested. This difficulty may be averted in some cases by the use of the infusion, or of digitalin. But after all digitalis is only directed to one part and the hygienic measures are those of most importance.

But when the pulse runs from 95—110 to the minute, particularly if the separate contractions of the heart are evidently inefficient and the pulse is weak and small—if, in other words, there is a manifest want of power, digitalis is an unrivalled remedy.

The indications for its use then are insufficiency of contraction on the part of the walls of the heart as shown by feeble, imperfect sounds and weak pulse, particularly if associated with frequent and irregular action. When the heart is slow and feeble, digitalis does not exert by any means so advantageous an action.



Digitalis may, as I have already remarked, disagree with the stomach and so increase the cardiac distress by reflex irritation. It must therefore be used cautiously and discreetly. Where it is well borne it may be given up to the production of its physiological action. Give it therefore, if necessary, in increasing doses. Give it freely—there is no fear of a cumulative action, if the dose be increased cautiously. The usual dose of the tincture is gtt. x, of the infusion f ʒ j, and of digitalin gr.  $\frac{1}{8}$  every three hours. In spells of awful cardiac disturbance larger doses are of course necessary, but as a general thing the quantities which I have just specified will be found to be sufficient.

Among other drugs, belladonna is of value, particularly where the heart's action is strong, but irregular. I have also frequently derived most excellent results from the use of the bromides. In cases where the heart is feeble, its muscles weak, and passive secondary congestions rife, quinia and strychnia do great good.

The last question of treatment is with regard to the management of the heart-lesion itself. Concerning this I have but few words to say. Where the lesion is inflammatory the iodide of potassium should be employed in long-continued doses. In young subjects I have often obtained very positive relief from the conscientious use of this remedy. Where the lesion is of a degenerative type I use cod-liver oil, the iodide of iron, and arsenic. These exert a slow but beneficial influence.

The foregoing has been a very sketchy discussion of a very large question. I hope that what I have said may lead you to regard organic heart disease as a systemic disease and one which demands the most careful thought and study for the proper understanding and application of treatment. Give it, above all things, sound physiological and hygienic care. Let your treatment be simple, and treat each case separately. The principles of its treatment are uniform. If you but gain a clear idea of them the details will easily follow.

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## ORIGINAL ARTICLES.

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### THE TREATMENT OF URETHRITIS BY THE APPLICATION OF COLD.

BY  
JNO. A. WYETH, M.D.

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I do not believe that this, "The German Method," is practised as generally as it should be. After trying it in the following cases I can heartily commend it to the profession. The apparatus consists of a double catheter closed at the vesical end. At the other end there are two nozzles for attachment of the rubber tubes, one for the inlet and outlet currents. Each of these tubes is attached to a tin vessel holding about two quarts of water. The water is brought to between 32° and 40° F. by addition of ice. (It is not necessary to make it uncomfortably cold for the patient.) Having introduced the

simultaneously the tubes are attached, one of the vessels being elevated and the other set on the floor, and the stop cocks are turned on. If necessary to prolong the assay the positions of the vessels can be reversed and the water will flow back into the empty vessel. The application may last from one to ten minutes, as the peculiar character of each case may require.

CASE I.—Act. 19. Urethritis (not gonorrhœal) of five months' duration. Discharge not profuse. Nocturnal seminal emissions four or five per week. Urethra congested. Two applications a week for five weeks. Patient discharged, symptoms having disappeared. Returned in four months with symptoms of old trouble not so exaggerated as formerly. Same treatment as before for five weeks. Cured, and has remained so for ten months. Quinine by the mouth gr. viij per day, for ten days.

CASE II.—Act. 21. Urethritis (non-specific) of three months' duration. Application of cold twice a week for four weeks. Quinine as above. Cured. Is well nine months after discontinuation of treatment.

CASE III.—Act. 34. Urethritis (non-specific), discharge slight for several months. Nocturnal seminal incontinence, an average of three or four times per week. Treated twice a week for two months. In addition, pill of quinine, iron and phosphorus. Cured.

CASE IV.—Act. about 18. Gonorrhœal urethritis of three weeks' standing. Daily injection of vinum rubrum for one week. Afterwards only the cold water catheter twice a week for three weeks. Quinine. Cured.

CASE V.—Act. 110. Urethritis non-specific several months (about 12). Quinine by the mouth for three weeks with cold applications twice a week for seven weeks. Cured.

CASE VI.—Act. about 23. Gonorrhœal urethritis of four months. Discharge abundant. Injections of vinum rubrum for ten days. Quinine and two *scauces* per week for three weeks. Cured. Has had no sign of urethritis for five months.

CASE VII.—Act. 19. Gonorrhœal urethritis of seven weeks' duration. Discharged cured after two applications. Urethritis not returned in two months which have elapsed. Quinine.

CASE VIII.—Act. 24. Gonorrhœal urethritis of ten weeks. Quinine and cold applications for two weeks. Cured.

CASE IX.—Act. 17. Gonorrhœal urethritis of ten days' standing. Injections of vinum rubri twice a day for two weeks. Quinine. Cold for two weeks. Disease entirely disappeared. Patient was attacked with gonorrhœa two weeks later after reckless exposure and drinking; the discharge returned. Being absent from the city I did not treat him then. He informs me that he was cured after two months' treatment with copaiba, cubebs and urethral injections.

CASE X.—Act. 26. Gonorrhœal urethritis of three months' standing. Quinine. Cold applications twice a week for eight weeks. Patient returned in six weeks with reappearance of disease. Discovered stricture  $\frac{1}{2}$  inch within meatus. Urethrotomy. Am treating patient by dilatation twice a week with cold. Pass No.

21 American with slight pain. Slight discharge to date. This last patient is of the strumous diathesis and was suffering from acne in an exaggerated form for which I had previously treated without success.

The success I have met with in these ten cases (all in which I have relied upon the application of cold to the entire urethral surface as the means of cure) has impressed upon me the great value of this method. It is almost painless in the application and more rapidly successful than any method I have yet practised.

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## HOSPITAL RECORDS.

### BELLEVUE HOSPITAL, NEW YORK.

Reported by E. HOCHHEIMER, M.D., House Surgeon.

#### FATAL TETANUS FOLLOWING LIGATION OF HEMORRHOIDS.

Thomas K. was admitted to the hospital Jan. 4th, 1879, giving a history of having suffered from hemorrhoids for about a year and a half; they were more or less painful all the time and occasionally bled in the act of defecation.

Examination showed one exteruo-internal pile, of considerable size at the margin of the anus, and two small internal ones springing from the upper part of the base of the first.

He was put upon nourishing diet, his bowels were regulated and on the morning of January 9th, the rectum having been previously cleared out by an enema, the hemorrhoids were strangulated by a strong silk ligature passed around their base, the skin and mucous membrane at the margin of the anus having been previously separated. Immediately after the operation  $\mathfrak{z}$  ij liq. morph. sulph. (U.S.P.) were administered; it was ordered that he should receive every morning and evening  $\mathfrak{z}$  j of the same, and he was restricted to a diet leaving very little residue.

For the next four days the patient complained of a little soreness but otherwise was apparently comfortable. The tissues included in the ligature became sloughy in appearance and diminished in size. About noon on the 14th, the patient complained of stiffness of the jaw; he seemed restless and nervous; his pulse and temperature remained normal. The ligature came away. The rigidity of the muscles of the jaw gradually increased so that on the following day, the patient was unable to open the mouth at all. The muscles of the back of the neck were also affected so that the head was drawn backward; still the breathing was regular and the temperature normal, though the pulse was slightly accelerated. At 11 o'clock on the night of Jan. 15th, he had a convulsive attack, lasting about five minutes and attended with great difficulty of respiration. This was succeeded by four others, each following its predecessor at a shorter interval and being more severe, and in the last, at 5 A.M. Jan. 16th, he died, the immediate cause of death being asphyxia. No autopsy could be obtained.



## PERISCOPE.

CLEANINGS FROM OUR FRENCH AND GERMAN EX-  
CHANGES.

JNO. A. WYETH, M.D.

## DR. REICH—LEECH IN THE OESOPHAGUS.

A countryman, æt. 34, had suffered from hemorrhage, cough and dyspnoea during six months. Febrile movement at night, was pale and looked down. He had swallowed a leech while drinking and had felt the animal moving in his throat. Emetics failed to dislodge it. A wire was bent to suit the curvature of the mouth and throat and to the end of this a small sponge was fastened. Having soaked this in a concentrated solution of common salt, the instrument was introduced, the leech dislodged and expelled during a fit of coughing which ensued.—*Deutsche Medizin*, 1878, No. 127. *Centralblatt für Chirurgie*, No. 24, 1878, p. 366.

## MARSH—OVIARTOMY IN A CHILD 12 YEARS OLD.

Eighteen months previous to the operation on the patient (who had not yet menstruated), a movable, painless tumor was observed in the right side of the abdomen, which seemed to be cystic in the portion nearest the median line, and solid in the outer half. The patient had suffered from nothing but constipation. On puncturing the tumor with a trocar a straw colored fluid 3 i, exuded. Next day fever; 4 days later tumor was much diminished in size, but after 6 days the cyst was again filled. In 15 days six pints of fluid were withdrawn by the aspirator. As it refilled soon after, Dr. Marsh performed ovariectomy. Cyst was not adherent, pedicle fixed by Spencer Wells clamp, and abdominal wound closed by wire sutures. Clamp came away in thirteen days and patient was discharged cured in eleven weeks. Tumor weighed two pounds and four ounces, and was four inches in diameter. Spencer Wells performed ovariectomy on a child eight years, an American surgeon on a girl seven years, and Brown upon a child two years of age, successfully. In the discussion, Maender remarked that puncture to confirm the diagnosis was dangerous, as several cases fatal from peritonitis were reported (\*) after this operation.—*Centralblatt für Chirurgie*, No. 51, p. 870.

F. KRELLER—UNUNITED FRACTURE—INTRODUCTION OF ANI-  
MAL BONE BETWEEN FRACTURED SURFACES.

Patient, male, æt. 53, while at sea broke the left forearm  $1\frac{1}{2}$  inch above the wrist. Nine months later, no union and false joint. An attempt to excite inflammatory fevers and reunion, by subcutaneous removal of the intervening fibrous tissue, failed and resection was

\*Which proved fatal in two cases at Bellevue Hospital.—W.)

made. This last operation followed by erysipelas and necrosis of radius, rendering arm useless.

Under "Lister," Dr. Patterson removed both ends of the fractured bones and drilled a hole through each end a little distance removed from the sawn edge. The contiguous ends of the ulna were wired closely together. Between the ends of the radius, which were removed three-fourths of an inch, a button of bone  $\frac{1}{2}$  inch in thickness, with the periosteum intact, was placed and this was wired to the resected surfaces of the radius. In six weeks the wires were removed from the ulna and at the same time the upper wire from the radius. Some time later the lower wire was removed, and twelve months after the resection the button of dog's bone came away through this wound which had at no time entirely healed. It was about one-half its original size. The union between the bones was perfect, the radius inclining slightly toward the ulna, but the patient regained the full use of his hand (1).—*Ibid*, No. 50.

A. WEIL.—FILLING TEETH AFTER EXTRACTION.—REPLACEMENT IN ALVEOLAR CAVITIES.—SUCCESSFUL.

Dr. W. recently extracted four teeth, two of which were molars (one upper and one lower) cleaned and filled them after extraction and then replaced them in the original alveolar cavities. The operation was successful and the patient can use them in mastication.—*Centralblatt für Chir.*, No. 50, p. 847.

RENZONI.—CURE OF OZENA BY INOCULATION OF THE NASAL MUCOUS MEMBRANE WITH GONORRHOEAL VIRUS.

Patient, child, suffering from obstinate ozæna. Spray holding in solution fresh gonorrhœal secretion was thrown in nares. The blennorrhœa which succeeded was treated with 30 per cent. solution of nitrate of silver, then with tannic acid and antiseptics. Fourteen days complete cure. One year later still continues well.—*Ibid*, p. 847.

[The danger of gonorrhœa lophthalmia resulting from an extension of the inoculation through the lachrymo-nasal duct, should not be forgotten. W.]

NEWS ITEMS AND NOTES.

Intussusception in an Infant Successfully Treated by Distention of the Large Intestine with thin Gruel, under Chloroform, By N. P. Blaker, M. R. C. S. Eng.—A. B. a well nourished infant, aged seven months, nursed by a healthy wet nurse, was in perfect health

(1) In the *New York Medical Record*, May 11, 1878, p. 367, is a case in which the translator injected bone cells from a sheep between the fragments of a fractured patella. A fibrous union resulted.

till twelve o'clock on September 4th. She then suddenly screamed, and immediately afterwards became collapsed, pale and cold. She was put in a warm bath, after which she lay quiet in the nurse's arms for an hour and a half, the bowels acting slightly once or twice. At 3 p.m. the child had become warmer, and was sleeping quietly, occasionally, however, waking up with a scream, and drawing up her legs, with an expression of severe pain. She took the breast at intervals, and then vomited, without much effort, the whole or a portion of what she had swallowed. Nothing abnormal could be detected in the abdomen, and in the intervals between the paroxysms of pain, a casual observer would have thought the child in perfect health. A mixture containing nearly one minim of tincture of opium for a dose was given and retained; and the child was afterwards more quiet till 6 p.m. when she passed two motions consisting of blood-stained mucus. She continued much in the same state during the evening, occasionally passing a small quantity of mucus after a paroxysm of pain. At 9 p.m., she was seen by Dr. Moore, and a large injection was proposed, but as Dr. Gee was expected at 11 p.m., it was decided to postpone all further treatment till his arrival. A distinct, but ill-defined oval tumor, about an inch and a half in its longest diameter, could then be felt through the parietes, at a spot about two inches to the left of the umbilicus. A considerable quantity, perhaps a drachm, of dark blood came away. It was determined to distend the large intestine with the gruel. The child was therefore, put thoroughly under the influence of chloroform and placed on a table, with the matrix well raised on a pillow. The gruel was then slowly injected by means of Higginson's syringe, the upper part of the nozzle being firmly pressed against the anus to prevent any from escaping. After a pint or more had been injected, the abdomen became somewhat tense, and the distended bowel could be felt like a hard rope an inch in diameter, across the upper part of the abdomen, almost as far as the right iliac region, and considerable force would have been required to inject any more of the fluid. When the nozzle of the syringe was removed, a portion of the gruel escaped, and soon afterwards a much larger quantity. The child slept at intervals during the night, and took the breast well, and there was no vomiting or pain. Next morning at 8 o'clock, the skin was a little hot and the pulse a little quick, and one small healthy motion had passed. The tumor which had been felt in the abdomen, had now quite disappeared. At 1 p.m., all the feverish symptoms were gone, and the child had passed a copious motion of a green color, and there had been no symptom of pain or spasm. At 4 p.m., she passed another motion of the same character. From this time, the child appeared to get her health, but the motions retained their green and offensive appearance till September 8th, four days after the commencement of the attack.

The success which attended the means adopted for the recovery of this little patient was due first to the chloroform, which by allaying muscular spasm, and preventing any struggling on the part of the child, allowed the treatment to be efficiently carried out; then the in-



jection of thin gruel was had recourse to early, before the intussusception could have extended far, or the invaginated bowel become congested and swollen; and, lastly the position of the child, lying on her back with the nates raised, favored, by gravitation the introduction of the fluid.—*British Med. Journal.*

**Some Incidental Benefits of Antiseptic Surgery.** By Robert Barner, M. D., F. R. C. P.—There are virtues attending antiseptic surgery, even beyond that of enhancing the patient's prospect of recovery from severe operations. The surgeon secures himself, as well as his patient, from the danger of blood poisoning. Had Maurice Colles performed the operation on the cancerous jaw, which cost him his life, under a cloud of carbolic spray, is it not reasonable to suppose that this admirable surgeon would have been safe from infection?

Sidney Smith used to say that doctors encountered the perils of pus and miasm with a heroism akin to that which animates the soldier in battle. But it is not the part of a good general to throw away needlessly a soldier's life. Nor can it be for the public good that a surgeon should, in his endeavor to save the lives of others, heedlessly risk his own.

Again: the still greater danger attending the performance of *post mortem* examinations may be minimised, if not annihilated by the use of the carbolic spray. This, I believe, will be found far more effectual than the use of filum glove. This point is especially important. The performance of *post mortem* examinations is often an unavoidable public duty, as well as a matter of scientific interest. I have known not a few instances in which puerperal fever and other diseases sprang up in the track of the surgeon who had been engaged in this duty. In this, as in many other ways, the welfare of the surgeon is intimately linked with the welfare of his patients, and of the public. Thus when we have realized the great facts:

1st.—That the field of surgery is enlarged by making operations condemned hitherto, possible and safe.

2nd —That the success of many recognized operations is greatly increased: we have far from exhausted the beneficial consequences of Lister's great discovery.

The question of the comparative danger attending the major operations in our larger hospitals, and in small special hospital and private practice, is apparently solved. The special dangers supposed to be inherent in large hospitals are eliminated, and their many natural advantages remain untouched. It is now a matter of experience that ovariectomy especially is, under the antiseptic method, as successful in our general hospitals, as in small institutions or in private practice. Might not the antiseptic spray be more widely extended to the practice of medicine and especially for the prevention of the spread of infection. We are familiar with the various vaporings for diffusing pleasant perfumes and vapors for inhalation. Some put their trust in saucers of Condy's fluid. This might be justified if the contagion, emanating from a case of small pox or scarlatina could only be induced to deposit itself in the saucers and go nowhere else. But it is not

so accommodating. The volatile particles diffuse themselves throughout the air, water, every cranny, cling to walls, floor, furniture, bedding, the clothes and person of attendants. A disinfectant, to be effective and trustworthy, must chase the poisonous particles as fast as they start from the source. The true disinfectant, is therefore, volatile, effluence, and sulphurous acid gas are excellent in this respect; but if generated in the ordinary way, they are irritating to the lungs, and it is difficult to keep up a supply of uniform strength. A plan that promises better would be to use a vaporizer worked by a spirit lamp, charged with a solution of one part of carbolic acid in a hundred, and to keep up a constant cloud of steam playing over the bed. The contagion would thus be met continually, at its source, and the vapor would spread throughout the room. Having operated often with a stream of one in forty playing under my nose, I can affirm that there is no reason to apprehend annoyance from this plan. But the ventilation of most of our bed-rooms, which sooner or later become our sick-rooms is but ill adapted to counteract infection. Every bed-room should be provided with an Arnott's chimney-valve to carry off the foul air, and to maintain a proper current of clean air to wash out the room, it is essential to supply a stream from without. The best contrivance I am acquainted with, is Tobin's tube. It acts better than an open window. When there is a fire in the grate, the combined action of Tobin's tube, and Arnott's valves is very efficient. The doors and windows may be kept closed and the ventilation goes on perfectly. If, we were to lay over the mouth of the Tobin's tube, suspended on a wire frame a sheet of gauze saturated with carbolic solution, the fresh air would enter charged with disinfectant and add to the efficacy of the spray producers.

Surely, if septicæmia can be stamped out from the surgeon's wards, small pox, scarlatina and diphtheria should not be allowed to spread from the sick-room. *British Med. Journal*

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